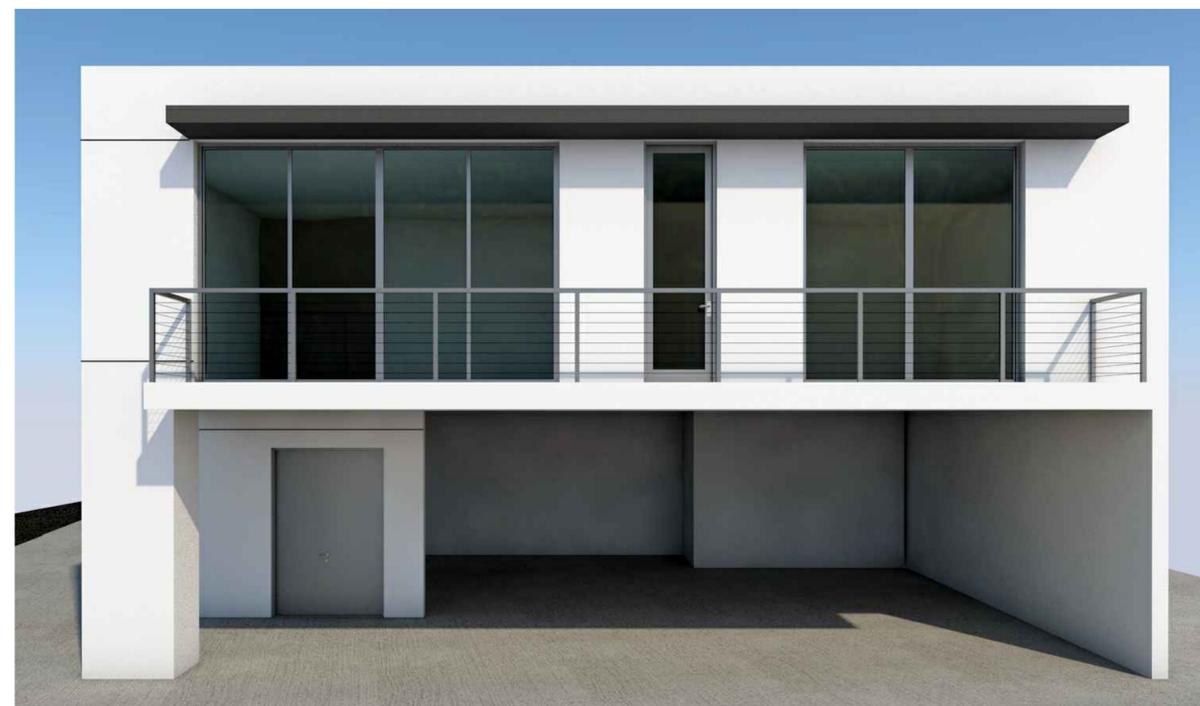




VIEW FROM VENTURA BLVD



VIEW FROM SUNNYSLOPE ST



VIEW FROM ALLEY



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PROJECT
13460-13462 W VENTURA BLVD,
SHERMAN OAKS, CA 91423

DRAWING TITLE
RENDERING

DATE: June 8, 2020

SCALE:

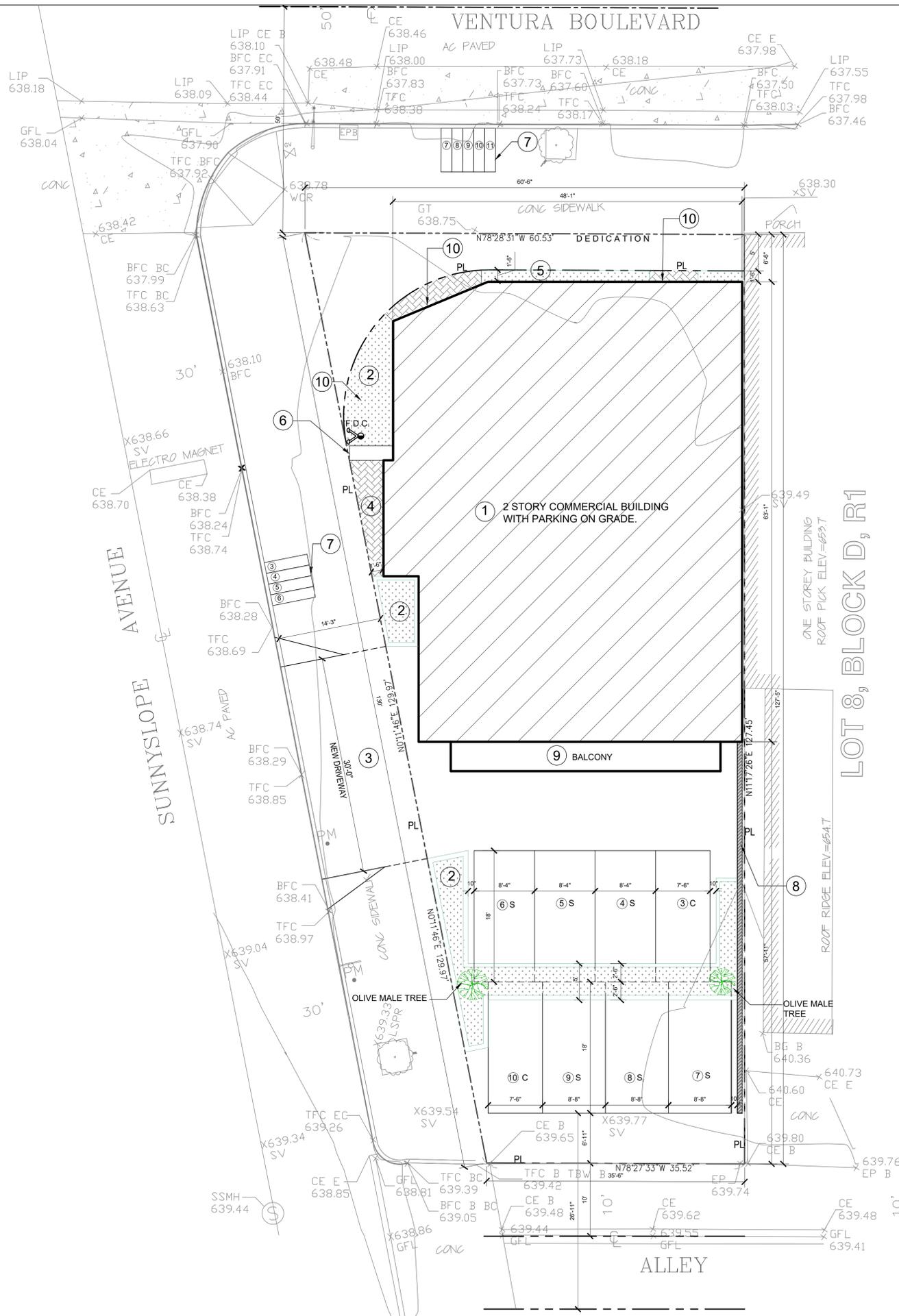
DRAWN:

APPROVED: AG

JOB : 19-871

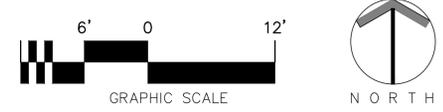
SHEET:

A-3.1



SITE PLAN

SCALE : 1/8"=1'-0"



PROJECT DATA

PROJECT SCOPE:	NEW COMMERCIAL BUILDING 2 STORIES WITH PARKING ON GRADE.
LEGAL DESCRIPTION	TRACT TR 5956, LOT 9, ARB 2, BLOCK D, AS RECORDED IN MB 67-43/44 (SHTS 1-2)
ASSESSOR PARCEL NO. (APN)	2373-007-008
LOT AREA	6,149.7 SQ.FT.
NEW CONSTRUCTION:	4,250 SQ.FT.

LEGEND

- ① 2 STORY COMMERCIAL BUILDING WITH PARKING ON GRADE.
 - ② LANDSCAPING
 - ③ DRIVEWAY
 - ④ WALKWAY
 - ⑤ IRRIGATION CONTROLLER
 - ⑥ (1) SHORT-TERM BICYCLE PARKING, 2' X 6'
 - ⑦ LONG-TERM BICYCLE PARKING LOCATION
 - ⑧ 6'-0" HIGH MASONRY BLOCK WALL PER CITY OF LA STANDARD PLAN.
 - ⑨ BALCONY LOCATION
 - ⑩ SIGN LOCATION, MULTIPLE TENANT T.B.D.
- PL PROPERTY LINE

PARKING CALCULATION

REQUIRED
PER VENTURA-CAHUENGA BLVD SPECIFIC PLAN

LEVEL	PER SQ.FT.	RENTABLE AREA SQ.FT.	TOTAL
1	1 PER 250	COMMERCIAL/ RETAIL 514+674=1,188/250	4.75
2	1 PER 300	PROFESSIONAL OFFICE #201= 669 #202= 579 #203= 957 HALLWAY= 111 TOTAL = 2,316 SQ.FT. 2,316/300= 7.72	7.72
TOTAL REQUIRED			12.47=13

REDUCTION

TOTAL REQUIRED: 13

PER BICYCLE ORDINANCE 182386 PARKING REDUCTION:
13 X 30% = 3.9=3 REDUCTION

13-3 = 10

AUTOMOBILE PARKING PROVIDED: 10

REPLACEMENT CALCULATION:
(3X4) = 12 BICYCLE PARKING

PROVIDED

AUTO-PARKING	QTY
STANDARD	7
COMPACT	2
DISABLE	1
T O T A L	10

BICYCLE PARKING TO BE PROVIDED:

SHORT-TERM = 1 (2'X6')
LONG-TERM = 11



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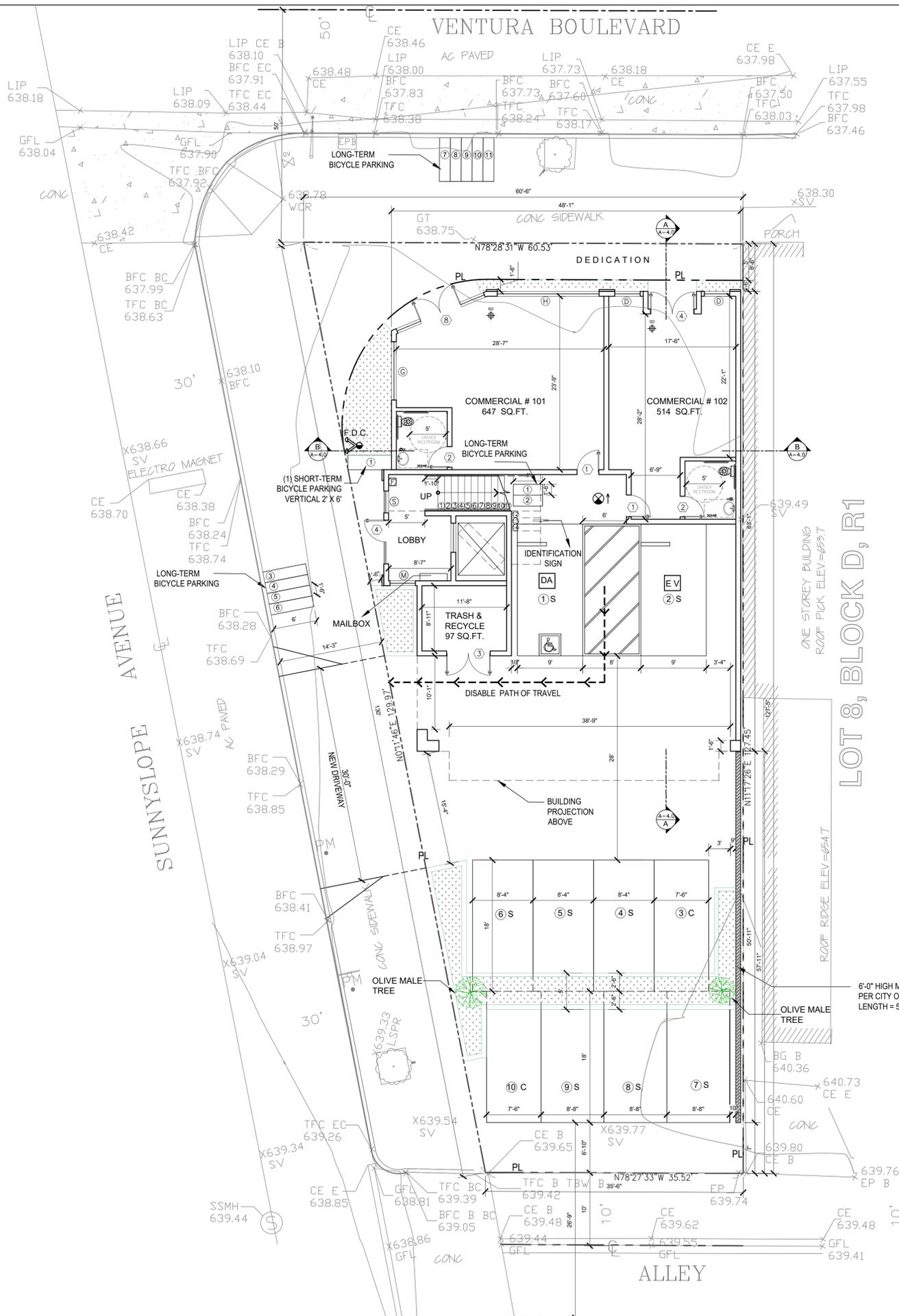
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PROJECT
13460-13462 W VENTURA BLVD,
SHERMAN OAKS, CA 91423

DRAWING TITLE
SITE PLAN

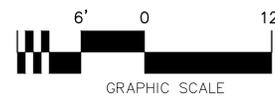
DATE: May 8, 2020
SCALE: 1/8"=1'-0"
DRAWN:
APPROVED: VA
JOB : 19-871
SHEET:

A-1.0



FIRST FLOOR PLAN

SCALE : 1/8"=1'-0"



LEGEND	
C1	3 HR. REQ. PER CBC 721.(2) ITEM 4-1.1 CONCRETE WALL SEE SPEC.
C2	3 HR. REQ. PER CBC 721.(2) ITEM 3 MASONRY WALL SEE SPEC.
W1	1 HR. EXTERIOR WALL
W2	CORRIDOR WALL
W5	INTERIOR WALL
W6	PLUMING WALL
W9	1 HR. SEPRATION WALL
W15	2HR.SHAFT (INTERIOR)
W16	2HR.SHAFT (EXTERIOR)
<p>→ PATH OF EGRESS</p> <p>---→ DISABLE PATH OF TRAVEL</p> <p>⊗ EXIT SIGN</p> <p>S STANDARD PARKING</p> <p>C COMPACT PARKING</p> <p>DA PROVIDE ACCESSIBLE SIGN REFER TO DA-1 SHEET PAGE 5</p> <p>□ BALCONY W/ CROSSFIELD PRODUCTS CORP. DEX-O-TEX COATING (1CBO#2360) OR EQUAL, ICC-ESR-1757 TYPE</p> <p>ⓕ 2A10BC FIRE EXTINGUISHER W/ SEMI- RECESSED CABINET. INSTALL MAX. 48" AFF. TO THE TOP</p> <p>ⓈD HARD WIRED SMOKE DETECTOR W/ BATTERY BACK-UP</p> <p>ⓈM CARBON MONOXIDE & HARD WIRED SMOKE DETECTOR W/ BATTERY BACK-UP</p> <p>Ⓢ MECHANICAL VENT, 7 1/2 AIR CHANGE PER HOUR, DIRECTLY TO THE OUTSIDE "ENERGY STAR" W/ HUMIDISTAT</p> <p>Ⓢ GROUND- FAULT CIRCUIT-INTERUPTER</p> <p>PL PROPERTY LINE</p> <p>F.D.C.</p> <p>ⓕ 2A10BC FIRE EXTINGUISHER W/ SEMI- RECESSED CABINET. INSTALL MAX. 48" AFF. TO THE TOP</p> <p>E.V. ELECTRICAL VEHICLE SUPPLY WIRING FOR FUTURE, REFER TO SHEET N-1(GB) * THE PANEL OR SUBPANEL SHALL HAVE SUFFICIENT CAPACITY TO SUPPORT AT LEAST LEVE2 EVSE." * THE ELECTRICAL SYSTEM SHALL HAVE SUFFICIENT CAPACITY TO SIMULTANEOUSLY CHARGE ALL DESIGNED EV SPACES AT FULL RATED AMPERAGE BASED ON LEVEL 2 EVSE. A SEPARATE ELECTRICAL PERMIT IS REQUIRED.</p> <p>* A LABEL 'EV CAPABLE' SHALL BE POSTED IN A CONSPICUOUS PLACE AT HTE SERVICE PANEL OR SUBPANEL AND EV CHARGING SPACE (4.106.4.2)</p> <p>E ELEVATOR CAR TO ACCOMMODATE AMBULANCE STRETCHER PER SECTION 3002.4, 24" X 84" WITH NOT LESS THAN 5-INCH RADIUS CORNER. HAVE MIN CAB DIM OF 80"X54"WITH 42" DOOR 3002.4.3a</p>	

NOTE

PARKING PROVIDED:
 1 DISABLE
 8 STANDARD
 1 COMPACT
 10 PARKING SPACES



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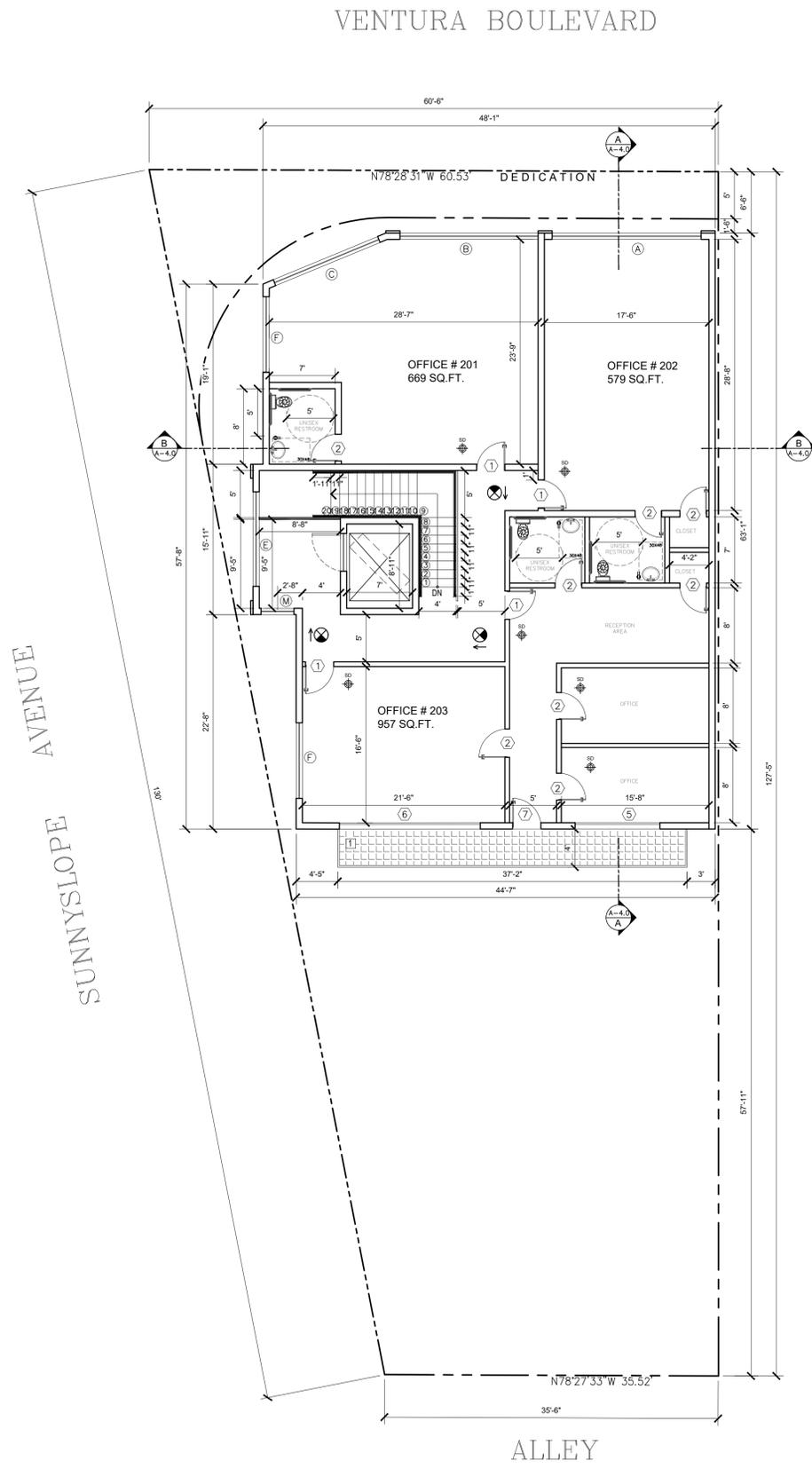
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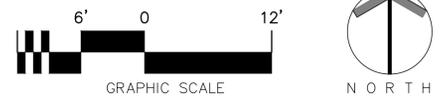
OWNER	MADISON INVESTMENT PROPERTIES, LLC NOORI GANJI PO BOX 5962 BEVERLY HILLS, CA 90209 PHONE: (310) 666-8842
PROJECT	13480-13462 W VENTURA BLVD. SHERMAN OAKS, CA 91423
DRAWING TITLE	FIRST FLOOR PLAN

DATE: May 8, 2020
SCALE: 1/8"=1'-0"
DRAWN:
APPROVED: AG
JOB : 19-871
SHEET:

A-2.0



SECOND FLOOR PLAN
SCALE : 1/8"=1'-0"



LEGEND

- C1 3 HR. REQ. PER CBC 721.(2) ITEM 4-1.1
CONCRETE WALL SEE SPEC.
- C2 3 HR. REQ. PER CBC 721.(2) ITEM 3
MASONRY WALL SEE SPEC.
- W1 1 HR. EXTERIOR WALL
- W2 CORRIDOR WALL
- W5 INTERIOR WALL
- W6 PLUMING WALL
- W9 1 HR. SEPRATION WALL
- W15 2HR.SHAFT (INTERIOR)
- W16 2HR.SHAFT (EXTERIOR)

- PATH OF EGRESS
- DISABLE PATH OF TRAVEL
- PROPERTY LINE
- EXIT SIGN
- STANDARD PARKING
- COMPACT PARKING
- DISABLE PARKING
- BALCONY W/ CROSSFIELD PRODUCTS CORP.
DEX-O-TEX COATING (1CBO#2360) OR
EQUAL, ICC-ESR-1757 TYPE
- 2A10BC FIRE EXTINGUISHER
W/ SEMI- RECESSED CABINET.
INSTALL MAX. 48" AFF. TO THE TOP
- HARD WIRED SMOKE DETECTOR BATTERY BACK-UP
- CARBON MONOXIDE & HARD WIRED
SMOKE DETECTOR W/ BATTERY BACK-UP
- MECHANICAL VENT, 7 1/2 AIR CHANGE PER
HOUR, DIRECTLY TO THE OUTSIDE "ENERGY
STAR" W/ HUMIDISTAT
- GROUND- FAULT CIRCUIT-INTERRUPTER

ELEVATOR CAR TO ACCOMMODATE AMBULANCE
STRETCHER PER SECTION 3002.4, 24" X 54" WITH NOT
LESS THAN 5-INCH RADIUS CORNER. HAVE MIN CAB DIM
OF 80"X54"WITH 42" DOOR 3002.4.3a

NOTE

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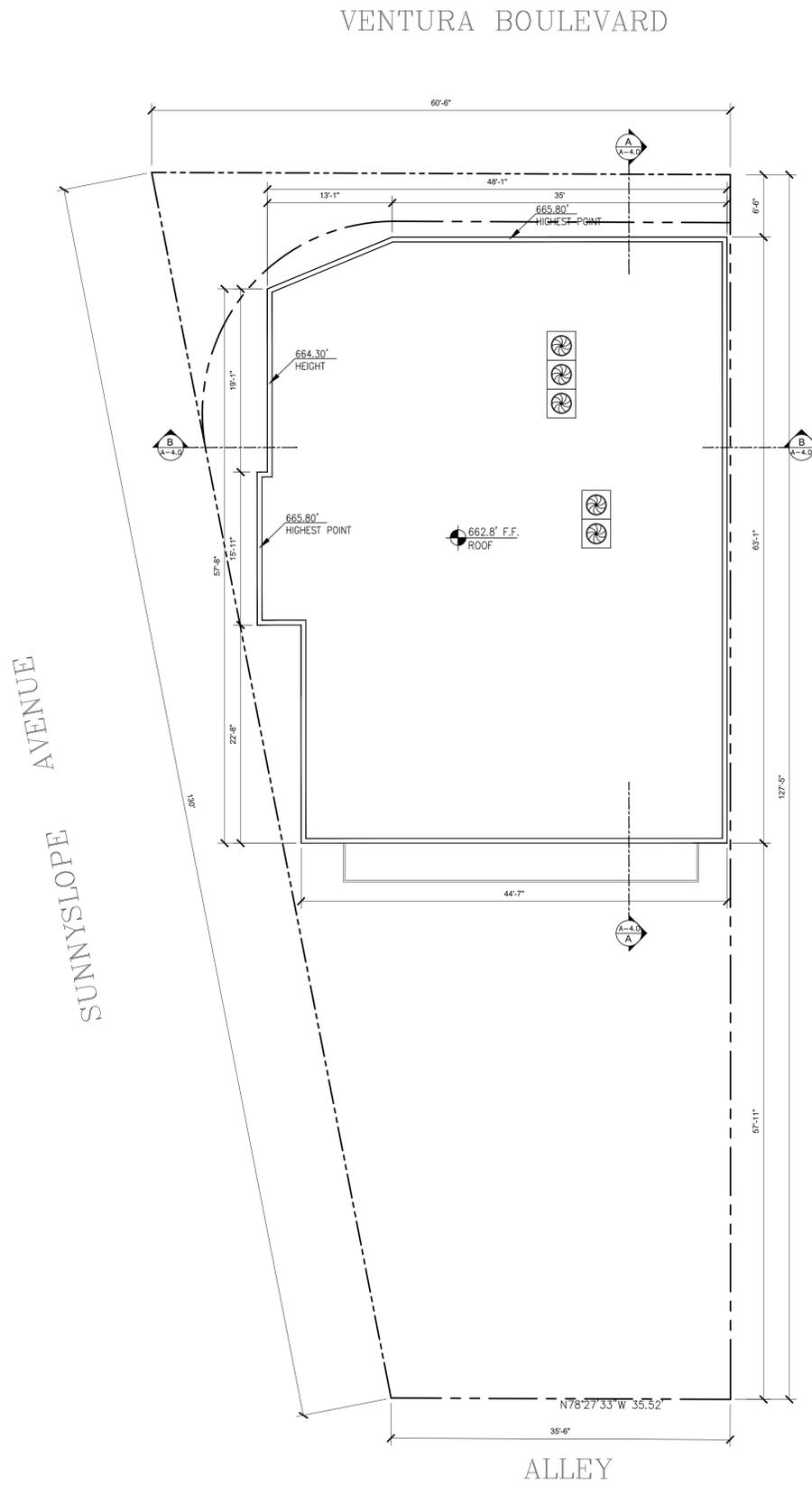
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PROJECT
13460-13462 W VENTURA BLVD,
SHERMAN OAKS, CA 91423

DRAWING TITLE
SECOND FLOOR PLAN

DATE:	May 8, 2020
SCALE:	1/8"=1'-0"
DRAWN:	
APPROVED:	AG
JOB :	19-871
SHEET:	



ROOF PLAN
SCALE : 1/8"=1'-0"



LEGEND

- PROPERTY LINE
-  AC UNIT

NOTE



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PROJECT
13460-13462 W VENTURA BLVD,
SHERMAN OAKS, CA 91423

DRAWING TITLE
ROOF PLAN

DATE:	May 8, 2020
SCALE:	1/8"=1'-0"
DRAWN:	
APPROVED:	AG
JOB :	19-871
SHEET:	

A-2.2

ELEVATION KEY NOTES

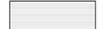
LEGAL DESCRIPTION:

TRACT TR 5956, LOT 9, ARB 2, BLOCK D, AS RECORDED IN MB 67-43/44 (SHTS 1-2)

1 STUCCO WHITE COLOR



2 STUCCO GRAY COLOR



3 STUCCO DARK GRAY COLOR



4 42" HIGH GUARDRAIL W/black COLORED

5 1" REVEAL STUCCO,

6 INTERIOR STAIRCASE

7 BALCONY

8 BLOCK WALL

9 SHIELDED LIGHTING

10 METAL AWNING

11 WINDOW

12 DOOR

13 STOREFRONT DOOR

14 SIGNS, TYPE TBD, PER ATTACHED SAMPLE

— PROPERTY LINE (P.L.)

NOTES:

- 7/8" STUCCO OVER PAPER BACK WIRE MESH PROVIDE 2-LAYERS OF GRADE " D " PAPER OVER PLYW'D.
- RECESSED ALL DOORS AND WINDOWS NO LESS THAN 3".
- EXTERIOR LIGHTING TO BE SHIELDED.
- WINDOWS AND BALCONY DOORS TO BE GRAY/SILVER ALUMINUM COLOR.



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PROJECT
13460-13462 W VENTURA BLVD.
SHERMAN OAKS, CA 91423

DRAWING TITLE
ELEVATIONS

DATE: May 8, 2020

SCALE: 1/8"=1'-0"

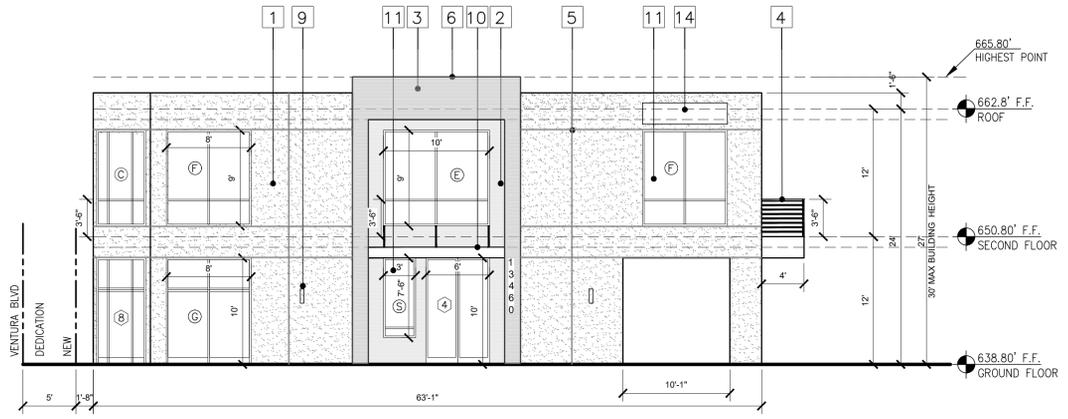
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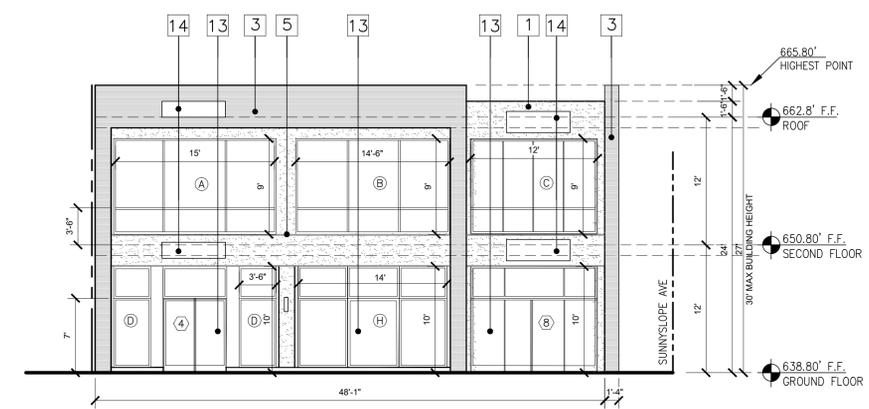
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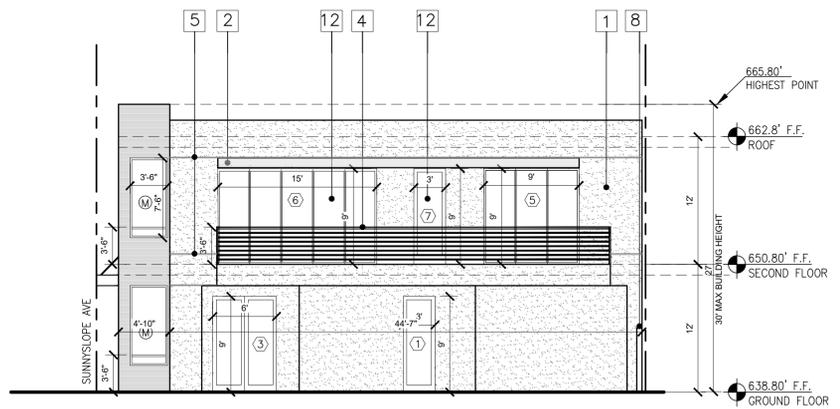
WEST ELEVATION

SCALE : 1/8"=1'-0"



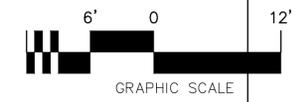
NORTH ELEVATION

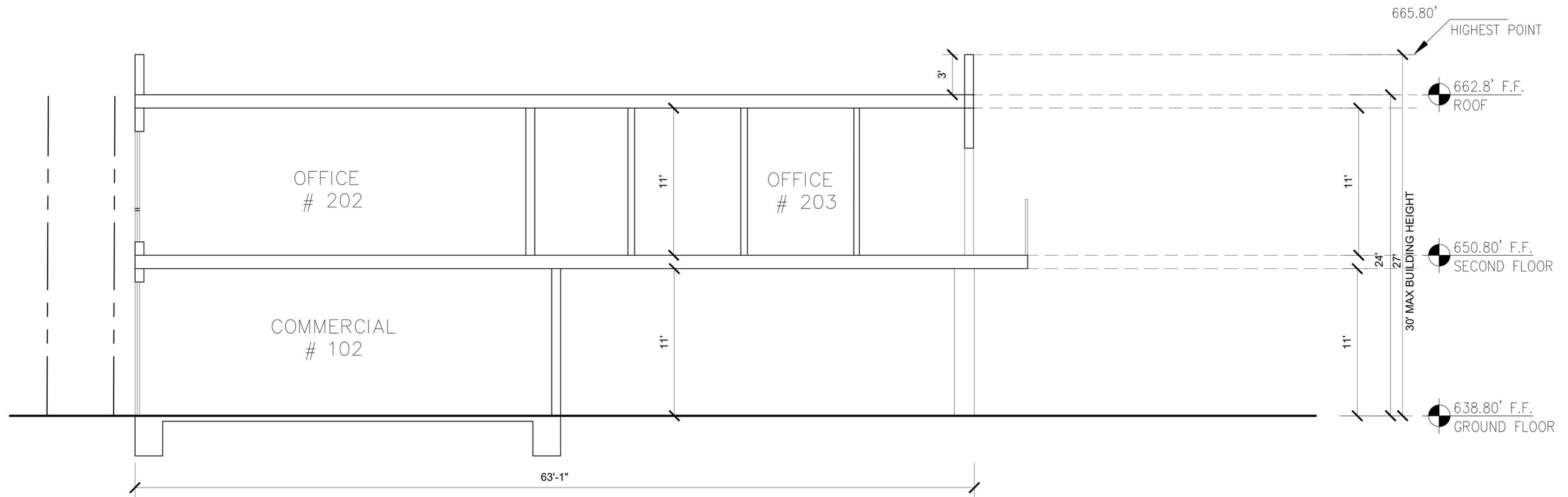
SCALE : 1/8"=1'-0"



SOUTH ELEVATION

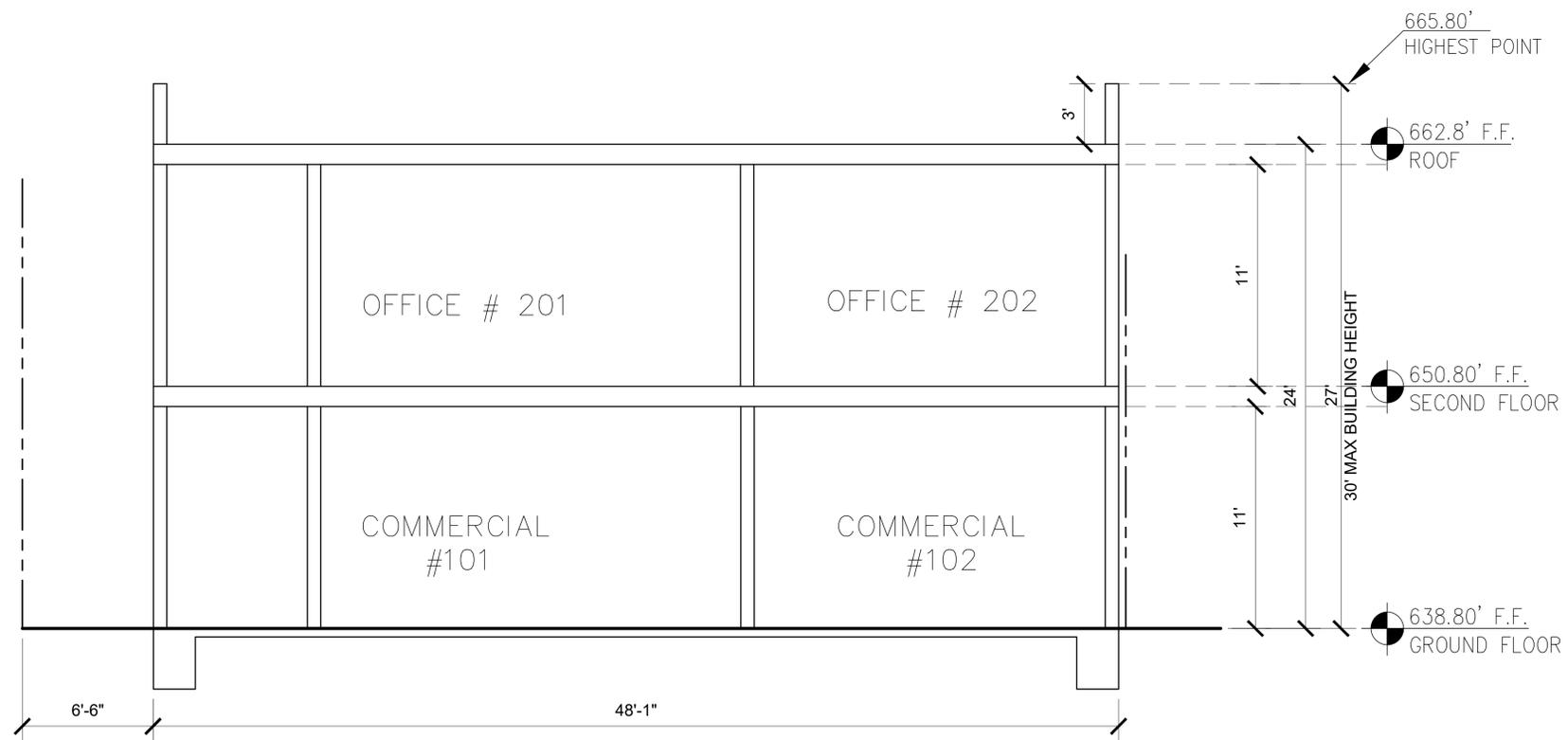
SCALE : 1/8"=1'-0"





SECTION A-A

SCALE : 1/4"=1'-0"



SECTION B-B

SCALE : 1/4"=1'-0"



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PROJECT
13460-13462 W VENTURA BLVD,
SHERMAN OAKS, CA 91423

DRAWING TITLE
SECTION A-A
SECTION B-B

DATE: May 8, 2020

SCALE: 1/4"=1'-0"

DRAWN:

APPROVED: AG

JOB : 19-871

SHEET:

A-4.0



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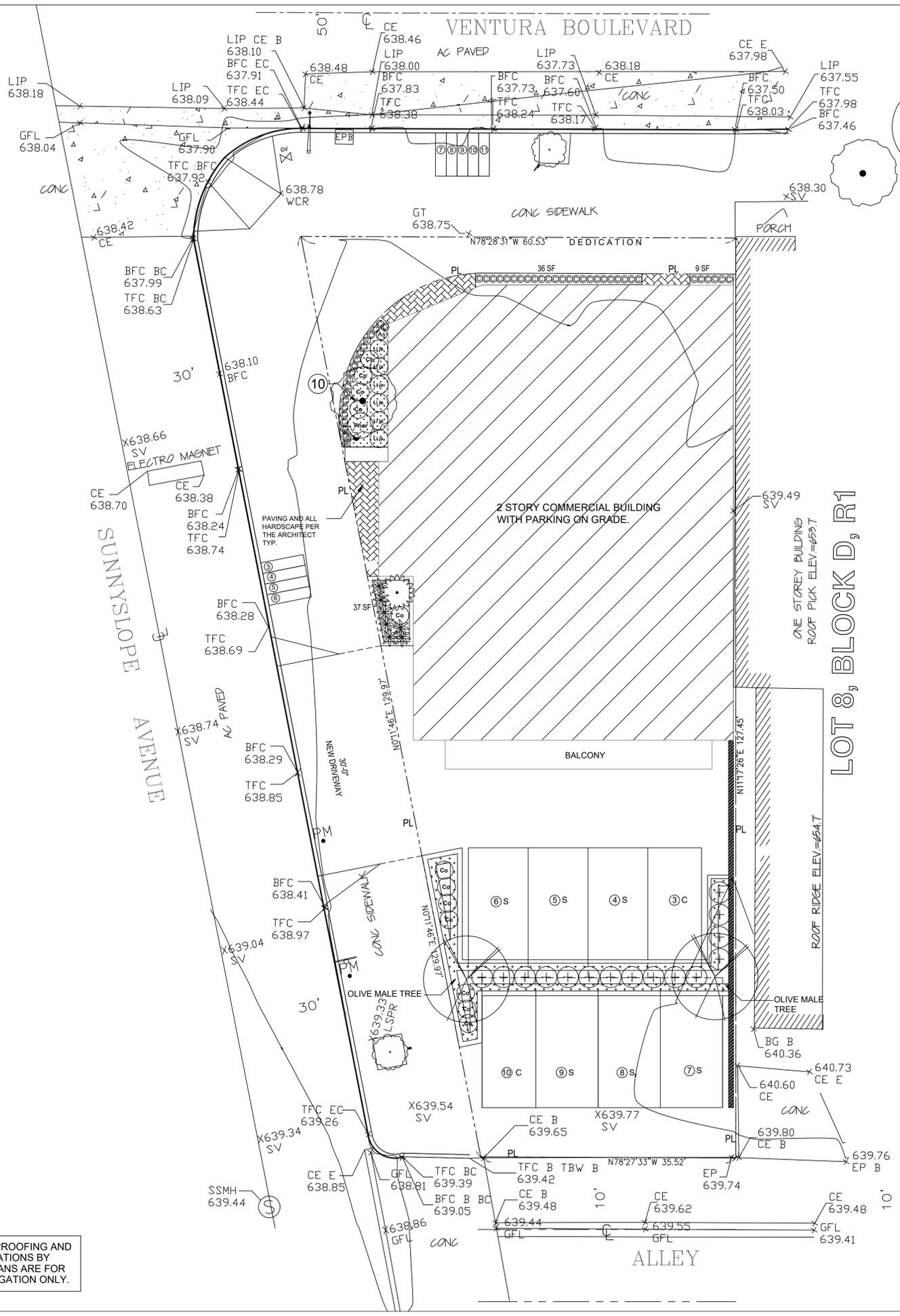
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PHONE: (310) 686-8842

PROJECT
13460-13462 W. VENTURA BLVD,
SHERMAN OAKS, CA 91423

DRAWING TITLE
PLANTING PLAN

DATE: June 9, 2020
SCALE: 1/8"=1'-0"
DRAWN:
APPROVED: va
JOB #: 19-871
SHEET:
L-1



PLANT LEGEND

SYM.	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	WUCOLS PF.	SIZE AT MATURITY	YEARS	REMARKS
TREES								
	<i>Olea europaea</i> 'Monher'	Majestic Beauty® Fruitless Olive	2	36" Box	M	35'x45'	15	
	<i>Lagerstroemia indica</i> x <i>fauriei</i> 'Tuscarora'	Tuscarora Crape Myrtle	1	24" Box	M	15'x15'	6	

NOTE: 2 X 1/4"=1 TREE TO BE PROVIDED ON SITE

PLANT LEGEND

SYM.	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	WUCOLS PF.	SIZE AT MATURITY	YEARS	REMARKS
SHRUBS								
As	<i>Aeonium</i> 'Sunburst'	Copper Pinwheel	1	5gal	L	2'x2'	2	
Asp	<i>Asparagus densiflorus</i> 'Myers'	Foxtail Fern	7	5gal	M	2'x2'	2	
Cd	<i>Carex divulsa</i>	Berkley Sedge	50	1gal	L	1'x3'	1	
Phor	<i>Phormium</i> 'FIT01' PP #20,451	Black Adder Flax	1	15gal	M	4'x3'	2	
Co	<i>Cordyline</i> 'Sprilecpink' PP#19,213	Electric Pink Cordyline	12	5gal	L	4'x4'	3	
Lj	<i>Ligustrum japonicum</i> 'Texanum'	Waxleaf Privet	6	5gal	M	5'x2'	3	
+	<i>Olea europaea</i> 'Montra'	Little Ollie	15	5gal	L	6'x6'	5	
OT	<i>Pittosporum tenuifolium</i> 'Oliver Twist'	Oliver Twist Kohuhu	1	5gal	M	8'x5'	5	
F	<i>Festuca glauca</i> 'Siskiyou Blue'	Blue Fescue	64	1gal@ 18"o.c.	L	2'X2'	3	

LANDSCAPE CALCULATION

REQUIRED	PROVIDED
PROJECT SITE: 6,149.7 SQ.FT.	24" Box trees: 1x1=1 36" Box trees: 2x3=6
	Use of Class I or Class II compost as a soil amendment in all landscaped areas: 3
POINTS REQUIRED: 10	TOTAL POINTS: 10

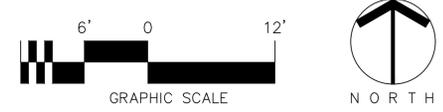
NOTES:
1. A minimum of 3-inch layer of cedar bark mulch shall be applied on all exposed soil surfaces of planting areas except turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
2. All Trees to be planted with commercial root barriers.
3. Use class I or class II Compost as a soil amendment in all landscaped areas.
4. For soils less than 6% organic matter in the top 6 inches of soil, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil.
5. Recirculating water shall be used for water features.

COMPLIANCE NOTE:
I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLANS.

6-9-2020 SIGNATURE

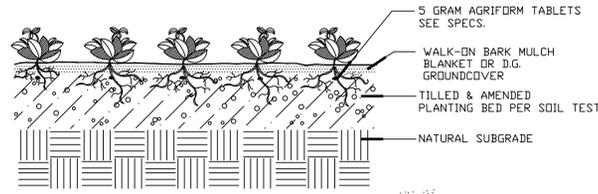
PLANTING PLAN

SCALE: 1/8"=1'-0"



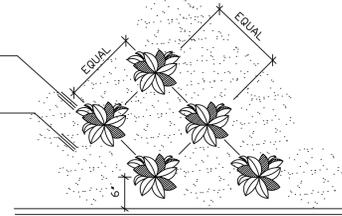
NOTE: ALL WATER PROOFING AND PLANTER SPECIFICATIONS BY OTHERS. THESE PLANS ARE FOR PLANTING AND IRRIGATION ONLY.

SECTION



GROUND COVER PLANTS
SEE PLANTING PLANS
FOR SPACING

WALK-ON BARK MULCH
BLANKET OR D.G.
GROUND COVER (SEE PLAN)



PLAN VIEW

6' MIN. TO HARDSCAPE OR MDWSTRIP

1 GROUND COVER PLANTING

PLANTING INSTALLATION NOTE

ADJUSTMENTS TO PLANT LAYOUT MAY BE REQUIRED IN THE FIELD DURING INSTALLATION BY THE LANDSCAPE ARCHITECT OR CITY REPRESENTATIVE TO ADDRESS SITE SPECIFIC SOLAR ORIENTATIONS OR MICROCLIMATIC CONDITIONS NOT REFLECTED IN THESE TYPICAL PLANS.

PLANTING NOTES

WEED CONTROL

WHERE PERENNIAL WEEDS EXIST ON SITE AT THE BEGINNING OF WORK, CLEAN AND REMOVE THESE EXISTING WEEDS BY MOWING OR GRUBBING OFF ALL PLANT MATERIAL. UPON COMPLETION OF SOIL PREPARATION AND PLANTING OF ALL SPECIMEN TREES, BEGIN WEED ABATEMENT PROGRAM BY APPLYING 100 POUNDS OF A COMMERCIAL FERTILIZER, 46-0-0, PER ACRE AND PER MANUFACTURER'S SPECIFICATIONS. WATER ALL AREAS FOUR (4) TIMES DAILY FOR FOURTEEN (14) CONSECUTIVE DAYS UNTIL WEED SEEDS HAVE GERMINATED. CEASE WATERING FOR THREE (3) DAYS. SPRAY A NON-SELECTIVE, NON-RESIDUAL, SYSTEMIC HERBICIDE TO ERADICATE GERMINATED WEEDS. LET THE WEEDS DIE WITHOUT IRRIGATION FOR A MINIMUM DEPTH OF 1/4" INCH BELOW THE SURFACE OF THE SOIL. IF STUBBORN AND RESIDUAL WEEDS (E. BERMUDA) SHOULD PERSIST ERADICATION PROCEDURE SHOULD BE REPEATED. THE TYPE OF WEEDS THAT EXIST SHOULD BE IDENTIFIED AND COORDINATED WITH AN APPROVED LICENSED PEST CONTROL ADVISOR TO ENSURE COMPATIBILITY WITH CHEMICAL AND SEASON OF APPLICATION. DO NOT USE MATERIAL OR METHOD THAT WOULD ADVERSELY AFFECT NEW PLANTINGS, SLOPE STABILIZATION OR HYDROSEEDING.

SOIL TEST

AFTER ALL SOIL HAS BEEN IMPORTED TO THE SITE AND ROUGH GRADING COMPLETED BUT PRIOR TO SOIL PREPARATION, THE CONTRACTOR SHALL FURNISH A COPY OF THE SOIL TEST FOR AGRICULTURAL SUITABILITY AND FERTILITY (PREPARED BY A CALIFORNIA ASSOCIATION OF AGRICULTURAL LABORATORIES MEMBER) TO THE CONTRACTING OFFICER. UPON REVIEWING THE SOILS REPORT THE CONTRACTING OFFICER MAY MAKE SPECIES SUBSTITUTIONS TO THE PLANT LIST.

SOIL PREPARATION

MACHINE ROTOTILL THE FOLLOWING AMENDMENTS INTO THE SOIL AT RATES INDICATED PER 1000 SF. (THESE RATES ARE FOR BID PURPOSES ONLY, ACTUAL RATES TO CORRESPOND TO CONTRACTOR'S SOILS REPORT).
4 CU. YDS NITROGEN STABILIZED SAWDUST
150 LBS. GYPSUM
125 LBS STANDARD FERTILIZER

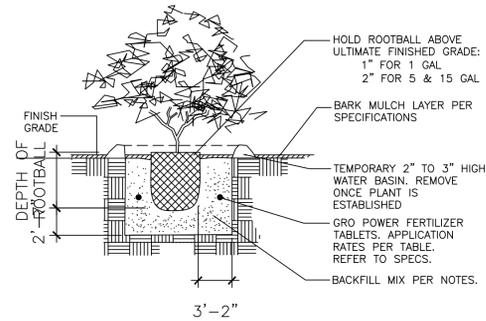
DEEP ROOT BARRIERS

ALL TREES WITHIN 6 FEET OF ANY PERMANENT HARDSCAPE ELEMENT SUCH AS CONCRETE WALKS, WALLS OR BUILDINGS SHALL BE PLANTED WITH AN APPROPRIATE SIZED LINEAR ROOT BARRIER (SEE DETAIL ON THIS SHEET).

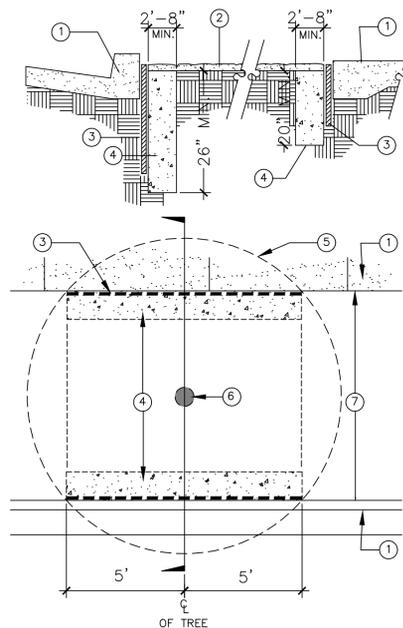
SHRUB PLACEMENT NOTES:

*HOLD ALL SHRUBS A MIN. OF 30" AWAY FROM FACE OF STUCCO WALLS AS MEASURED FROM THE CENTER OF THE ROOTBALL TO FACE-OF-WALL
*HOLD ALL GROUND COVER 18" AWAY FROM FACE-OF-WALL

NOTE: ALL WATER PROOFING AND PLANTER SPECIFICATIONS BY OTHERS. THESE PLANS ARE FOR PLANTING AND IRRIGATION ONLY.



2 SHRUB PLANTING DETAIL



NOTES:

A. POSITION BARRIER AS CLOSE TO CURB OR SIDEWALK AS POSSIBLE. RAISED ROOT PROTECTORS SHALL BE FACING TOWARDS THE TREE.

B. TOP OF BARRIER SHALL BE 1" ABOVE FINISHED GRADE.

C. LENGTH OF ROOT BARRIER SHALL BE EQUAL TO THE ULTIMATE DRIPLINE OF THE PARTICULAR TREE, OR 10' MAX.

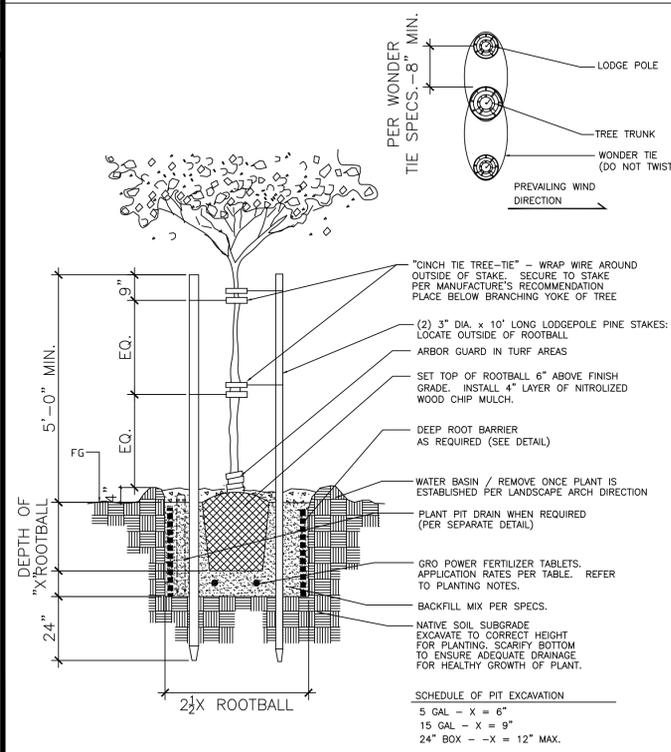
LEGEND:

- 1 CONCRETE CURB OR HARDSCAPE
- 2 FINISHED GRADE
- 3 APPROVED ROOT CONTROL BARRIER
- 4 3/4" TO 1 1/2" GRAVEL OR CRUSHED ROCK
- 5 DRIP LINE OF TREE
- 6 CENTER OF TREE
- 7 PARKWAY WIDTH

ROOT BARRIER IS TO BE 18" LINEAR BARRIER UB 18-2 WHEN ADJACENT TO WALK OR HARDSCAPE OR 24" LINEAR BARRIER UB 24-2 WHEN ADJACENT TO CURB

AVAILABLE FROM:
DEEP ROOT PARTNERS, L.P.
345 LORTON AVE. SUITE 103
BURLINGAME, CA. 94010
(800) 766-8853

3 ROOT BARRIER



4 DOUBLE STAKED TREE



ENGINEERING INC.
6747 ODESSA AVENUE
VAN NUYS, CA 91406
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Call: (818) 203-3336
Fax: (818) 708-2847

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PHONE: (310) 666-8842

PROJECT
13460-13462 W. Ventura Blvd.
Sherman Oaks, Ca 91423

DRAWING TITLE
PLANTING DETAILS
AND NOTES

DATE:	June 20
SCALE:	1/8"=1'-0"
DRAWN:	
APPROVED:	V.A.
JOB #:	18-823
SHEET:	L-2

IRRIGATION NOTES

- DO NOT WILLFULLY INSTALL THE SYSTEM AS DESIGNED, WHEN IT IS OBVIOUS THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT WERE NOT KNOWN DURING DESIGNING, SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE, OTHERWISE THE IRRIGATION CONTRACTOR MUST ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
- THIS DESIGN IS DIAGRAMMATIC, EQUIPMENT SHOWN IN PAVED AREAS IS FOR CLARIFICATION ONLY, AND IS TO BE INSTALLED IN PLANTING AREAS WHEREVER POSSIBLE.
- UNLESS OTHERWISE NOTED, 120 VOLT ELECTRICAL POWER FOR CONTROLLER(S) TO BE PROVIDED BY OTHERS. THE IRRIGATION CONTRACTOR WILL MAKE FINAL ELECTRICAL CONNECTION TO AUTOMATIC CONTROLLER(S) FROM OUTLET PROVIDED BY OTHERS.
- ALL WIRES FROM CONTROLLER TO AUTOMATIC VALVES TO BE COPPER, DIRECT BURIAL, MIN. #14 GAUGE. INSTALL IN SAME TRENCH AS MAINLINE PIPING WHERE POSSIBLE. MIN. COVERAGE OVER WIRE TO BE 18". COMMON WIRE TO BE WHITE IN COLOR. CONTROL WIRES TO BE A DIFFERENT COLOR FOR EACH CONTROLLER USED. BUNDLE AND TAPE WIRESTOGETHER MIN. 20" ON CENTER.
- FINAL LOCATIONS FOR BACKFLOW PREVENTER(S) AND CONTROLLER(S) TO BE DETERMINED BY OWNER'S AUTHORIZED REPRESENTATIVE, IN THE FIELD.
- INSTALL ALL EQUIPMENT (VALVES, GATE VALVES, BOXES ETC.) IN PLANTING AREAS ONLY, NOT IN LAWN AREAS.
- PROVIDE MIN. 18" COVERAGE OVER ALL PRESSURE LINES, AND MIN. OF 12" COVERAGE OVER ALL NON-PRESSURE LINES. ALL PIPING UNDER PAVING TO BE MIN. SCHEDULE 40 P.V.C. AND TO HAVE MIN. 24" COVER OVER PIPING.
- IRRIGATION CONTRACTOR TO FLUSH ALL LINES AND ADJUST ALL SPRINKLERS FOR MAXIMUM PERFORMANCE, AND TO PREVENT OVERSPRAY ONTO WALKS, DRIVES, BUILDING, ETC.. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT ACTUAL SITE CONDITIONS.
- ALL SHRUBBERY SPRINKLERS ADJACENT TO PARKING LOT OR ALONG WALKS OR ROADS SHALL BE INSTALLED WITH HIGH POP-UP BODIES.
- DRIPPERLINE WILL BE INSTALLED MAXIMUM 6" FROM HARDSURFACE AND WILL BE SPACED AT MAXIMUM 12" ON CENTER FOR ENTIRE PLANTED AREA WHERE SHOWN. ALL TUBING WILL BE CONNECTED TO EITHER P.V.C. HEADER OR TO OTHER TUBING. THERE WILL BE NO "DEAD ENDS." TOP OF DRIPPERLINE WILL BE AT SAME LEVEL AS FINISH GRADE.

- IRRIGATION CONTRACTOR WILL INSTALL SWING CHECK VALVES OR SPRING LOADED CHECK VALVES AS REQUIRED TO ELIMINATE EXCESSIVE DRAINAGE FROM LOW SPRINKLERS. THIS WILL BE IN ADDITION TO ANY CHECK VALVES SHOWN ON PLAN.
- ALL P.V.C. MAINLINE FITTING TO BE "LONG SOCKET" TYPE AS MANUFACTURED BY DURA COMPANY.
- UPON COMPLETION, IRRIGATION CONTRACTOR TO SUPPLY TO OWNER, A COMPLETE SET OF REPRODUCIBLE "AS-BUILT" DRAWINGS. DRAWING WILL SHOW LOCATION OF ALL VALVES, CROSSINGS, QUICK COUPLING VALVES, ETC. EACH CONTROLLER TO HAVE ITS OWN CONTROLLER CHART. CHART WILL CLEARLY SHOW EACH AREA SPRINKLED IN A DIFFERENT COLOR, AND WILL BE LAMINATED BETWEEN 2 LAYERS OF 10MIL. CLEAR PLASTIC.
- THE IRRIGATION SYSTEM SHALL BE FULLY GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. ANY DEFECTIVE MATERIALS OR POOR WORKMANSHIP SHALL BE REPLACED OR CORRECTED BY IRRIGATION CONTRACTOR AT NO COST TO OWNER.
- AT THE TIME OF FINAL INSPECTION, THE PERMIT APPLICANT MUST PROVIDE THE OWNER OF THE PROPERTY WITH A CERTIFICATE OF COMPLETION, CERTIFICATE OF INSTALLATION, IRRIGATION SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE.
- UNLESS CONTRADICTED BY A SOILS TEST, COMPOST AT A RATE OF A MINIMUM OF FOUR CUBIC YARDS PER 1,000 SQUARE FEET OF PERMEABLE AREA SHALL BE INCORPORATED TO A DEPTH OF SIX INCHES INTO THE SOIL.
- IDENTIFICATION OF A POTABLE AND NONPOTABLE WATER SYSTEM. IN BUILDINGS WHERE POTABLE WATER AND NONPOTABLE WATER SYSTEMS ARE INSTALLED, EACH SYSTEM SHALL BE CLEARLY IDENTIFIED IN ACCORDANCE WITH SECTION 601.2.1 THROUGH SECTION 602.2.4

601.2.1 POTABLE WATER. GREEN BACKGROUND WITH WHITE LETTERING
 601.2.2 COLOR AND INFORMATION. EACH SYSTEM SHALL BE IDENTIFIED WITH A COLORED PIPE OR BAND AND CODED WITH PAINTS, WRAPS, AND MATERIALS COMPATIBLE WITH THE PIPING.

601.2.2.1 ALTERNATE WATER SOURCES. ALTERNATE WATER SOURCE SYSTEMS SHALL HAVE A PURPLE (PANTONE COLOR NO. 512, 522C, OR EQUIVALENT) BACKGROUND WITH UPPERCASE LETTERING AND SHALL BE FIELD OR FACTORY MARKED AS FOLLOWS:

- GRAY WATER SYSTEMS SHALL BE MARKED IN ACCORDANCE WITH THIS SECTION WITH THE WORDS "CAUTION: NONPOTABLE GRAY WATER, DO NOT DRINK" IN YELLOW LETTERS (PANTONE 108 OR QUIVALENT).
- RECLAIMED (RECYCLED) WATER SYSTEMS SHALL BE MARKED IN ACCORDANCE WITH THIS SECTION WITH THE WORDS: "CAUTION: NONPOTABLE RECLAIMED (RECYCLED) WATER, DO NOT DRINK" IN BLACK LETTERS.
- ON SITE TREATED WATER SYSTEMS SHALL BE MARKED IN ACCORDANCE WITH THIS SECTION WITH THE WORDS: "CAUTION: ON-SITE TREATED NONPOTABLE WATER, DO NOT DRINK" IN YELLOW LETTERS (PANTONE 108 OR EQUIVALENT).
- RAINWATER CATCHMENT SYSTEMS SHALL BE MARKED IN ACCORDANCE WITH THIS SECTION WITH THE WORDS: "CAUTION: NONPOTABLE RAINWATER, DO NOT DRINK" IN YELLOW LETTERS (PANTONE 108 OR QUIVALENT).
- ALL SPRINKLER HEADS OF THE SAME TYPE SHALL BE OF THE SAME MANUFACTURER.
- OVERHEAD IRRIGATION SHALL NOT BE PERMITTED WITHIN 24-INCHES OF ANY NON-PERMEABLE SURFACE.
- RECIRCULATING WATER SYSTEMS SHALL BE USED FOR WATER FEATURES
- FOR SOILS LESS THAN 6% ORGANIC MATTER IN THE TOP 6 INCHES OF SOIL, COMPOST AT A RATE OF A MINIMUM OF FOUR CUBIC YARDS PER 1,000 SQUARE FEET OF PERMEABLE AREA SHALL BE INCORPORATED TO DEPTH OF SIX INCHES INTO THE SOIL.
- PRESSURE REGULATION DEVICES ARE REQUIRED IF WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.
- CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL SPRINKLER HEADS WHERE LOW POINT DRAINAGE COULD OCCUR.
- I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.



- A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
- A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE DESIGNER OF THE LANDSCAPE PLANS, IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.
- AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.
- AT THE TIME OF FINAL INSPECTION, THE PERMIT APPLICATION MUST PROVIDE THE OWNER OF THE PROPERTY WITH A CERTIFICATE OF COMPLETION, CERTIFICATE OF INSTALLATION IRRIGATION SCHEDULE AND A SCHEDULE OF LANDSCAPE AND IRRIGATION MAINTENANCE.

RAIN / ET SENSOR PLACEMENT NOTE:

THE RAIN SENSOR SHALL BE INSTALLED ON THE SOUTH OR SOUTHWESTERN FACING AREA OF THE ROOF. THE AREA SELECTED SHALL BE IN A CLEAR OPEN AREA OF THE ROOF NOT EFFECTED BY SHADE FROM ANOTHER BUILDING OR TREE. THE CONTRACTOR SHALL INSTALL THE SENSOR ON AN EAVE OR FASCIA BOARD PER THE DIRECTION OF THE LANDSCAPE ARCHITECT. ALL WIRING SHALL BE CONCEALED PER THE DIRECTION OF THE LANDSCAPE ARCHITECT EITHER WITHIN PVC CONDUIT OR OTHER MEANS AS DIRECTED BY THE LANDSCAPE ARCHITECT.

DRIPLINE SUPPLY/EXHAUST LATERAL PIPE SIZING:

ZONE FLOW	PIPE SIZE
0 – 5 GPM	DRIPLINE TUBING or 1/2" PVC
5 – 8 GPM	3/4" PVC
8.1 – 13 GPM	1" PVC
13.1 – 22 GPM	1 1/4" PVC
22.1 – 30 GPM	1 1/2" PVC

CITY OF LOS ANGELES LANDSCAPE ORDINANCE IRRIGATION POINTS				
REQUIRED FOR 6,149.7 SQ.FT. PROJECT: 100				
TECHNIQUE	TABLE II ITEM	# OF ITEM	POINTS PER ITEM	TOTAL PONTS
Drip/low precipitation circuits	1	5	5	25
Automatic irrigation controller w/ cycling capacity	3	1	5	5
Plants on site to remain more than 3 years	6	29	2	58
Lawn area 0%-15% of landscape area	2	1	10	10
Rain sensor	4	1	2	2
TOTAL POINTS				100

Hydrozone	Plant water use type	Plant factor (PF)	Hydrozone Area (HA) square feet	PFxHA (square feet)
1	Moderate	0.4	503	201.2
		SUM	503	201.2

Water Budget Calculation:
MAXIMUM APPLIED WATER ALLOWANCE (MAWA):
 $(ETo)(0.62)(ETAF)(AREA)$
 $(50.1)(0.62)(0.55)(503)=8,593.3$ GALLONS

Estimated Total Water Use (ETWU):
 $(ETo)(0.62)x((PFxHA)/IE)$
 $(50.1)x(0.62)x(201.2/0.81) =7,715.6$ Gallons

The ETWU (7,715.6 Gallons per year) is less than MAWA (8,593.3 Gallons per year), the water budget complies with the MAWA.

IRRIGATION LEGEND

SYM.	DESCRIPTION
	RAINBIRD XCZ-075-PRF CONTROL ZONE KIT -REMOTE CONTROL VALVE FOR BUBBLER SYSTEMS.
	HUNTER WIRELESS SOLAR SYNC SENSOR, MOUNT UP TO 800' FROM RECEIVER
	HUNTER 1" MASTER VALVE - IBV SERIES VALVE - NORMALLY CLOSED
	HUNTER FCT-100 - 1" FLOW-CLIK FLOW SENSOR
	FEBCO 825 Y - 1" BACKFLOW PREVENTION UNIT - TO BE INSTALLED in STAINLESS STEEL ENCLOSURE POWDER COATED COLOR BLACK.
	NIBCO BRASS BALL VALVE - LINE SIZE
FDC	FIRE DEPARTMENT CONNECTION - FOR REFERENCE ONLY
P.O.C.	VERIFY LOCATION ON SITE POINT OF CONNECTION
----	1.5" PRESSURE MAINLINE LINE CLASS 315 PVC - INSTALL DEPTHS PER DETAIL
----	NON-PRESSURE LATERAL LINE SCH. 40 P.V.C. - INSTALL DEPTHS PER DETAIL
	DRIP LINE FLUSH CAP
	HUNTER ICORE IC-600-PL OUTDOOR WALL MOUNT CONTROLLER with SOLAR SYNC. (ONE ON EACH FLOOR)
	POTABLE WATER METER - LOCATE IN FIELD
	HUNTER PLD-BV MANUAL FLUSH VALVE. - PROVIDE 3' OF TUBING AFTER THE BALL VALVE. INSTALL VALVE INSIDE 6" ROUND VALVE BOX, ONE AT THE FAR END OF DRIPLINE LATERAL. INSTALL MINIMUM OF ONE FLUSH VALVE PER MAXIMUM OF 800' OF TUBING. MULTIPLE FLUSH VALVES MAY BE REQUIRED WITHIN DRIPLINE LAYOUT. ALWAYS INSTALL VALVES IN OPPOSITE DIRECTIONS OF THE PVC/DRIP CONNECTION MANIFOLD. - INSTALL ONE FOR EACH PLANTER AT THE LOW POINT OF THE SYSTEM.
	INSTALL 1 AIR RELIEF VALVE PER SYSTEM AT THE HIGHEST ELEVATION POINT. SEE DETAIL
	HUNTER PLD-10-18 SUB-SURFACE DRIPLINE TUBING 1.0 GPH EMITTERS at 18" ON CENTER SPACING- ALL TUBING SHALL BE INSTALLED 1" MINIMUM BELOW FINISHED SOIL GRADE W/ 9" WIRE STAKES FIVE (4) FEET ON CENTER; VERIFY THE LAYOUT AND 18" ON CENTER ROW SPACING IN THE FIELD PRIOR TO STARTING WORK. INSTALL SUB-SURFACE DRIP IRRIGATION SYSTEM PER MANUFACTURER'S SPECIFICATIONS.
	BUBBLER HUNTER PCB-50 HEAD ON SCH. 80 NIPPLE EACH SYMBOL REPRESENTS TWO BUBBLERS PER TREE. PLACE BUBBLERS AT EDGE OF ROOTBALL ON OPPOSITE SIDES OF TREE TYPICAL. INSTALL BUBBLERS 1" BELOW FINISH GRADE WITHIN PERFORATED PVC DRAIN PIPE.
	RAINBIRD QUICK COUPLER 33DLRC
	RAINBIRD XACZ-075-PRF CONTROL ZONE KIT - REMOTE CONTROL ATMOSPHERIC VALVE FOR DRIP SYSTEMS.
	NIBCO BRASS LOCKING KEY HOSE BIB - ATTACH TO BUILDING BY PLUMBER. INSTALL PER LOCAL BUILDING CODE.

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PROJECT
 13460-13462 W. Ventura Blvd.
 Sherman Oaks, Ca 91423

DRAWING TITLE
 IRRIGATION NOTES
 AND LEGENDS

DATE: June 20
 SCALE: 1/8"=1'-0"
 DRAWN:
 APPROVED: V.A.
 JOB : 18-823
 SHEET:

VENTURA BOULEVARD

SEE SHEET L-3 FOR IRRIGATION NOTES & LEGENDS
SEE SHEETS L-5 & L-6 FOR IRRIGATION DETAILS



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SHERMAN OAKS, CA 91423

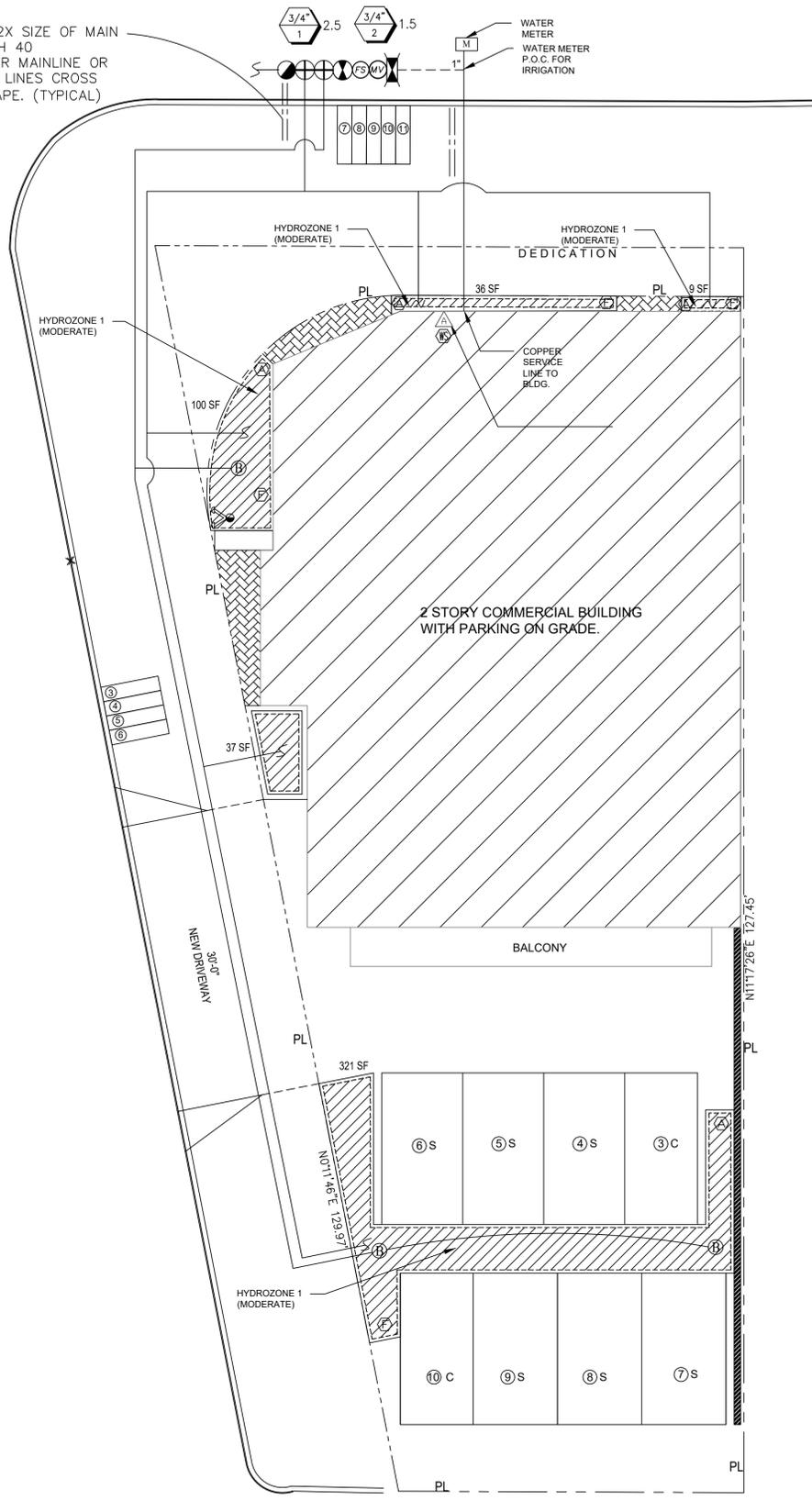
DRAWING TITLE
IRRIGATION PLAN

DATE: June 9, 2020
SCALE: 1/8"=1'-0"
DRAWN:
APPROVED: va
JOB : 19-871
SHEET:

L-4

SLEEVE 2X SIZE OF MAIN LINE. SCH 40 WHENEVER MAINLINE OR LATERAL LINES CROSS HARDSCAPE. (TYPICAL)

SUNNYSLOPE AVENUE

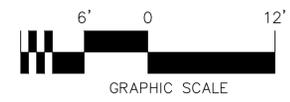


ROOF RIDGE ELEV.=654.7

ALLEY

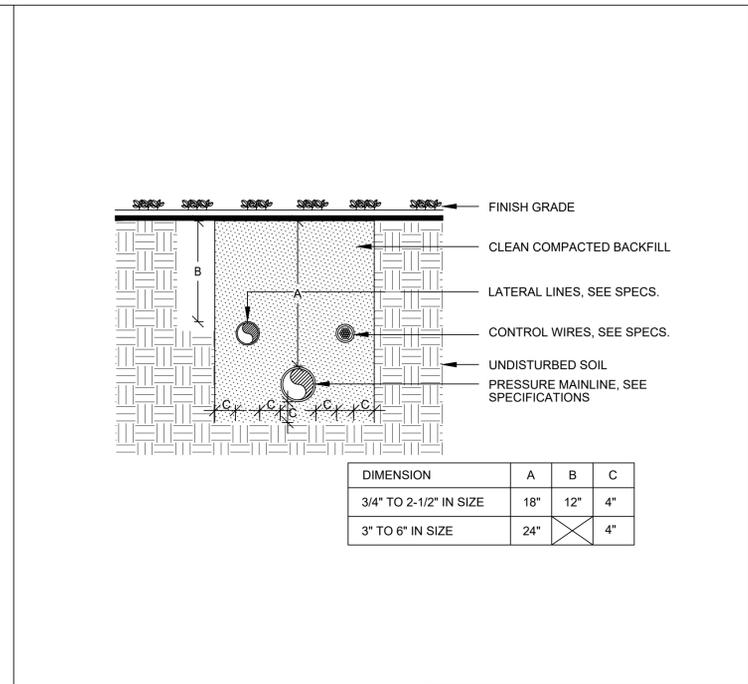
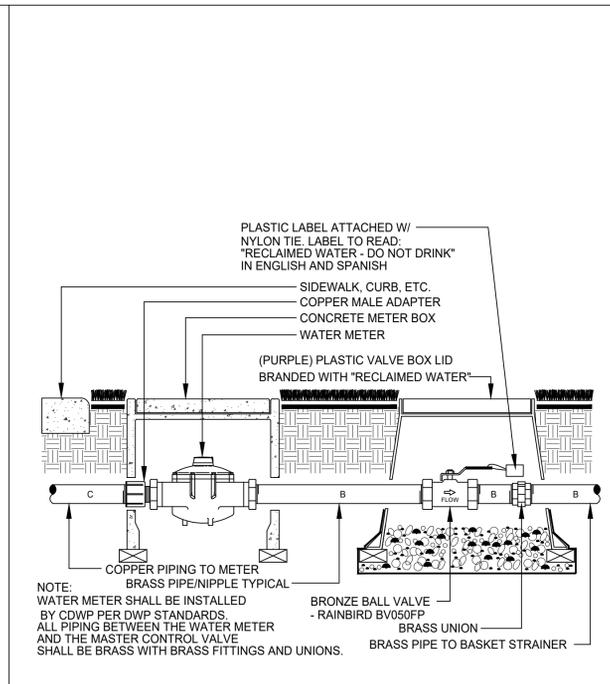
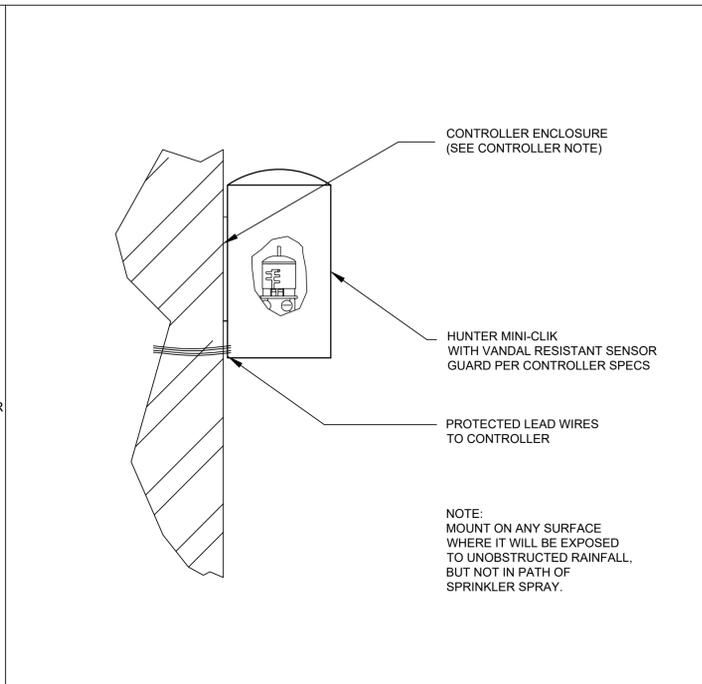
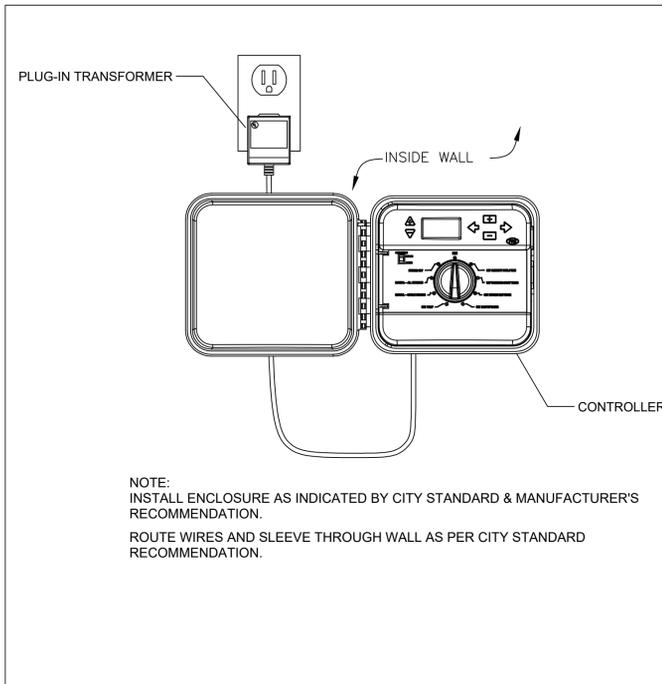
IRRIGATION PLAN

SCALE : 1/8"=1'-0"



NOTE: ALL WATER PROOFING AND PLANTER SPECIFICATIONS BY OTHERS. THESE PLANS ARE FOR PLANTING AND IRRIGATION ONLY.

PLANNING AND ZONING INFORMATION :
PROPOSED: (2) STORY COMMERCIAL BUILDING WITH DETACHED PARKING ON GRADE
ADDRESS: 13460-13462 W. VENTURA BLVD, SHERMAN OAKS, CA 91423
LOT AREA: 6,149.7 SF

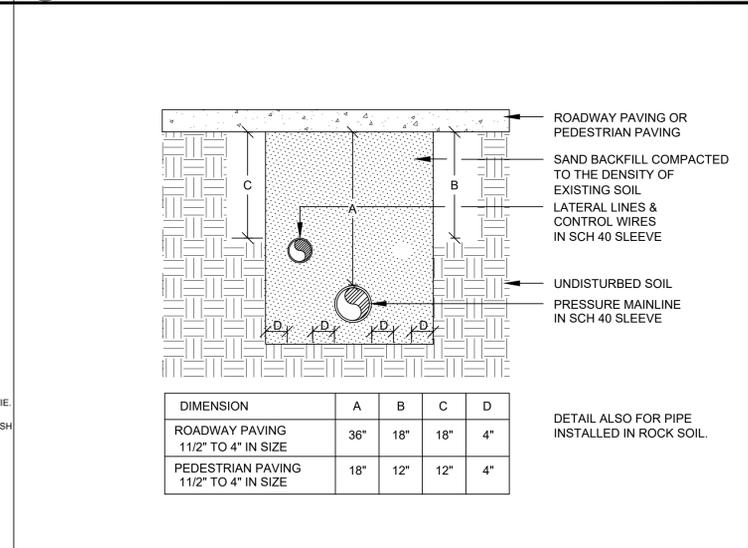
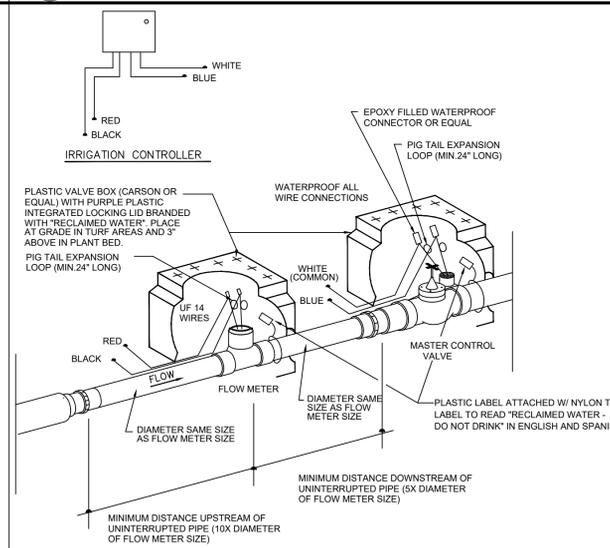
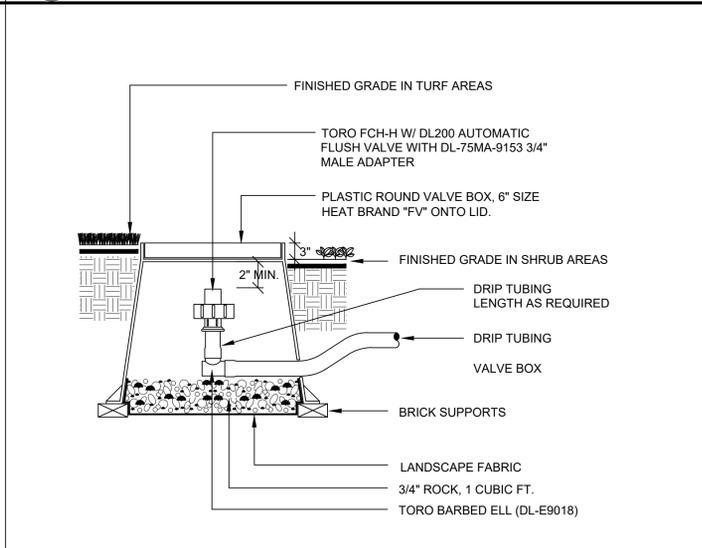
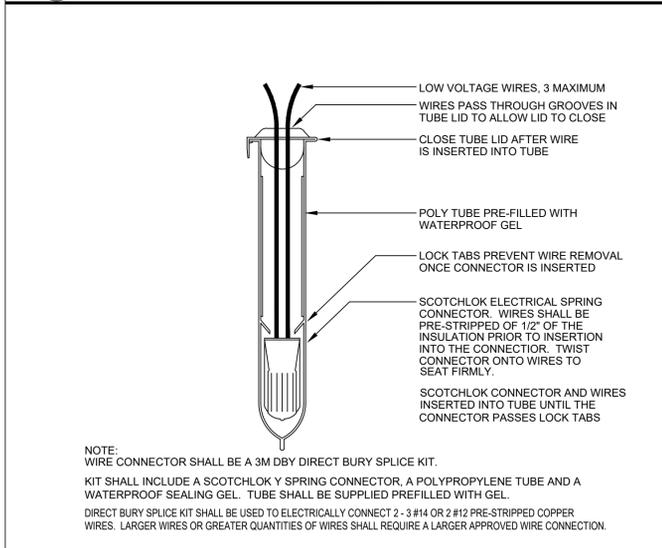


(D) CONTROLLER

(C) WIRELESS RAIN/FREEZE SENSOR

(B) TYPICAL POINT OF CONNECTION

(A) PIPE INSTALLATION

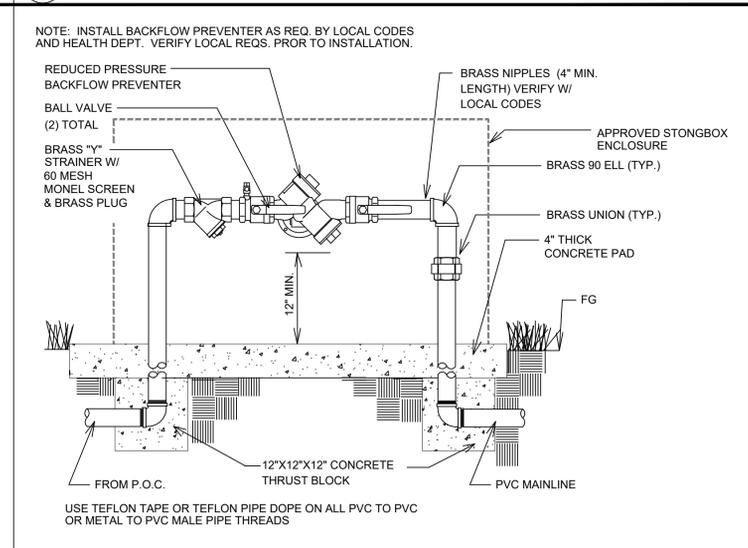
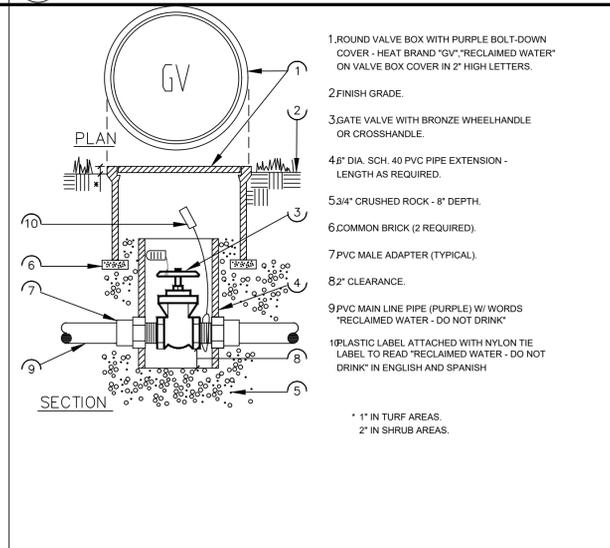
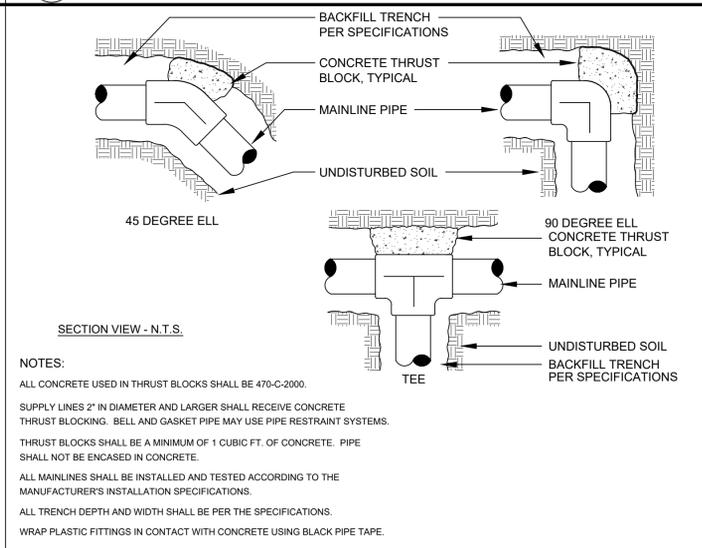
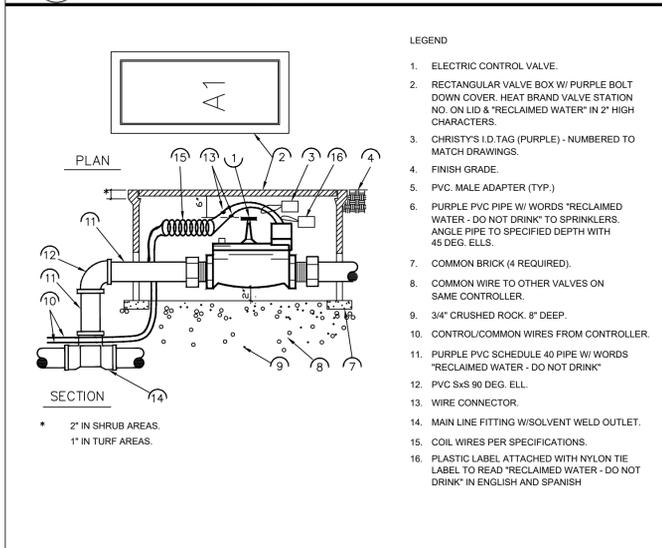


(H) WIRE CONNECTION

(G) FLUSH VALVE

(F) FLOW METER

(E) SLEEVE INSTALLATION



(L) REMOTE CONTROL VALVE

(K) THRUST BLOCKS

(J) GATE VALVE

(I) BACKFLOW PREVENTOR

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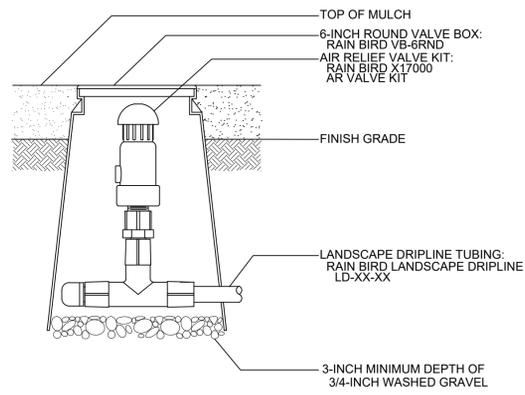
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PROJECT
13460-13462 W. Ventura Blvd.
Sherman Oaks, Ca 91423

DRAWING TITLE
IRRIGATION DETAILS

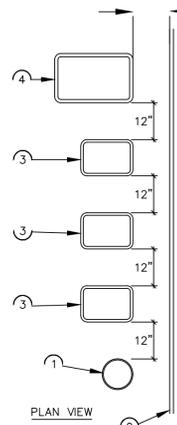
DATE: June 20
SCALE: 1/8"=1'-0"
DRAWN:
APPROVED: V.A.
JOB: 18-823
SHEET:

L-5



(D) AIR RELIEF VALVE

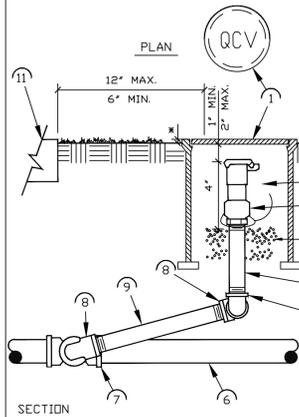
VALVE BOX LABELING NOTE:
HEAT BRAND ALL VALVE BOX COVERS IN 2" HIGH LETTERS
PER EQUIPMENT LOCATED WITHIN VALVE BOXES, AND W/ "RECLAIMED WATER".
LABEL "GV" FOR ALL GATE VALVES
LABEL "QCV" FOR ALL QUICK COUPLER VALVES
LABEL "MV" FOR ALL MASTER VALVES
LABEL "VALVE STATION" FOR ALL CONTROL VALVES W/ "RECLAIMED WATER"
LABEL "FM" FOR ALL FLOW MASTER VALVES



LEGEND - USE CARSON VALVE BOXES.
1. 10' DIAMETER CIRCULAR VALVE BOX.
2. EDGE OF LAWN, WALK, FENCE, CURB, ETC.
3. 3.14' x 19' RECTANGULAR VALVE BOX.
4. 4.20' x 30' RECTANGULAR VALVE BOX.

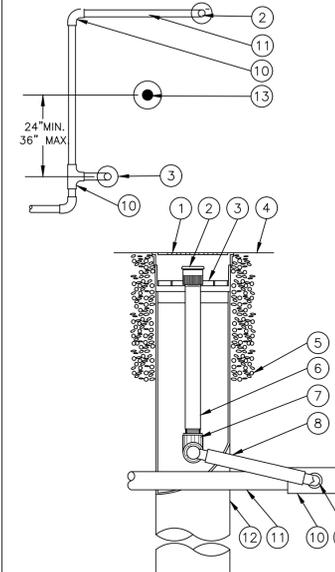
NOTES
A CENTER VALVE BOX OVER VALVE TO FACILITATE SERVICING OF VALVE.
B SET VALVE BOXES 2" MAXIMUM ABOVE GRADE IN MULCH COVER OR GROUND COVER/SHRUB AREAS - SET FLUSH WITH FINISH GRADE IN TURF AREAS.
C SET VALVE BOX AND VALVE ASSEMBLY IN GROUND-COVER/SHRUB AREA WHERE POSSIBLE - INSTALL IN TURF ONLY IF THERE IS NO ADJACENT GROUND-COVER.
D SET VALVE BOXES PARALLEL TO ONE ANOTHER AND PERPENDICULAR TO EDGE.
E AVOID HEAVY COMPACTION OF SOIL AROUND VALVE BOXES TO PREVENT THEIR DEFORMATION/COLLAPSE.

(C) VALVE BOX INSTALLATION



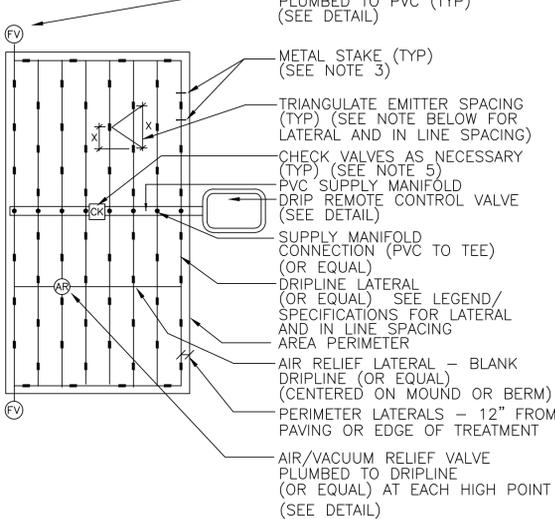
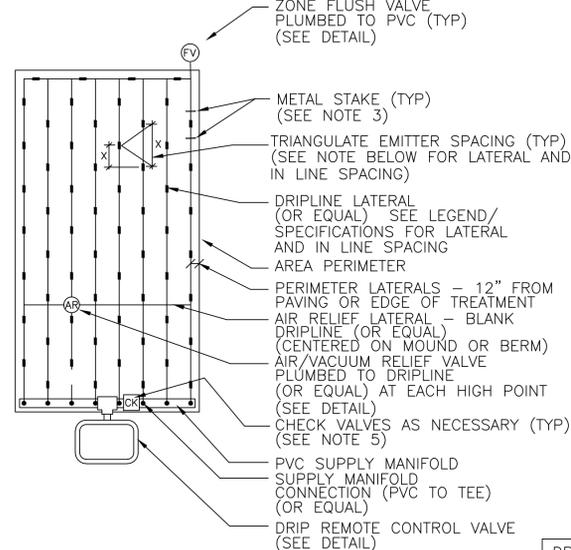
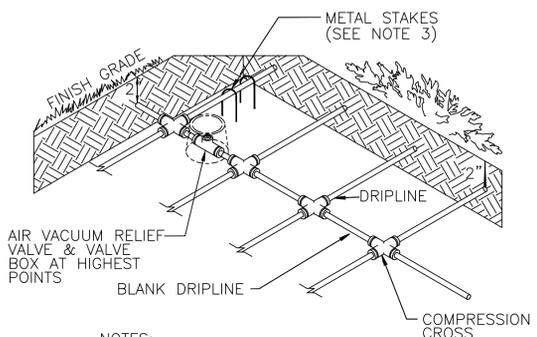
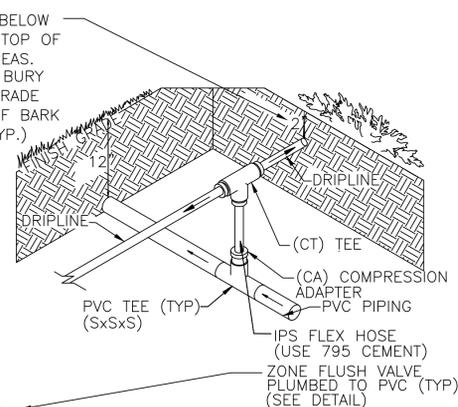
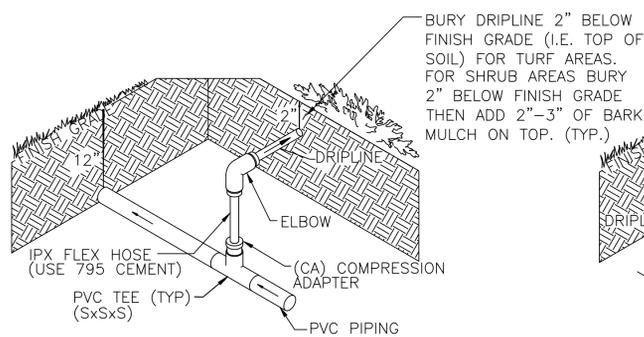
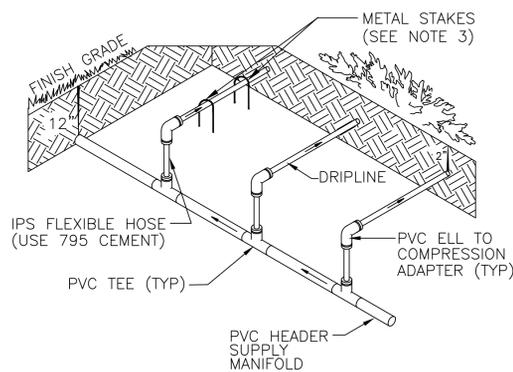
LEGEND
1. 10" ROUND VALVE BOX WITH PURPLE BOLT-DOWN COVER - HEAT BRAND "QCV" "RECLAIMED WATER" ON VALVE BOX COVER IN 2" HIGH LETTERS.
2. FINISH GRADE.
3. 3/4" CRUSHED ROCK, 6" DEPTH.
4. BRASS NIPPLE. (LENGTH AS REQUIRED).
5. BRASS 90 DEG. ELL.
6. PURPLE PVC MAINLINE PIPING W/ WORDS "RECLAIMED WATER - DO NOT DRINK"
7. MAINLINE FITTING.
8. BRASS 90 DEG. STREET ELL.
9. BRASS NIPPLE - 6" LONG.
10. QUICK COUPLER VALVE MADE SPECIFICALLY FOR RECLAIMED WATER SYSTEM.
11. WALK OR CURB.
12. PLASTIC LABEL ATTACHED W/ NYLON TIE LABEL TO READ "RECLAIMED WATER - DO NOT DRINK" IN ENGLISH AND SPANISH
NOTE: USE TEFLON TAPE ON ALL MALE PIPE THREADS.

(B) QUICK COUPLER



1 4-INCH GRATE (INCLUDED)
2 BUBBLER: SEE IRRIGATION LEGEND (INCLUDED)
3 ROOT WATERING SYSTEM:
4 FINISH GRADE
5 OPTIONAL PEA GRAVEL OR RWS SAND SOCK (RWS-SOCK) FOR SANDY SOILS
6 1/2-INCH PVC SCH 80 NIPPLE (INCLUDED)
7 1/2-INCH 90-DEGREE ELBOW (INCLUDED)
8 12-INCH SWING ASSEMBLY (INCLUDED)
9 1/2-INCH MALE NPT INLET (INCLUDED)
10 PVC SCH 40 TEE OR EL
11 LATERAL PIPE W/ WORDS "RECLAIMED WATER DO NOT DRINK" IN ENGLISH AND SPANISH
12 4-INCH BASKET WEAVE CANISTER (INCLUDED)
13 TREE

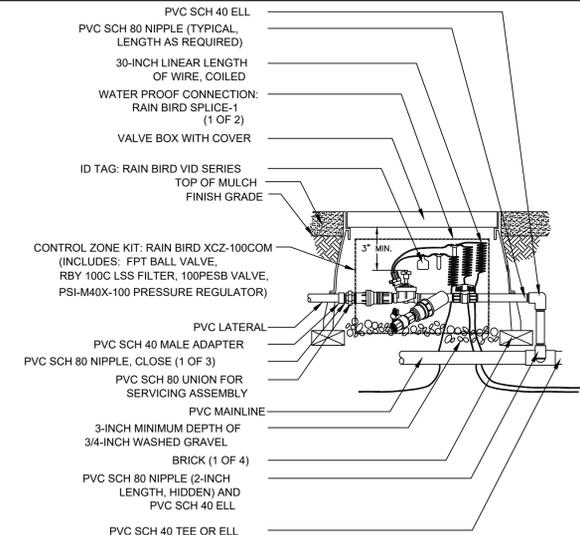
(A) ROOT WATERING SYSTEM



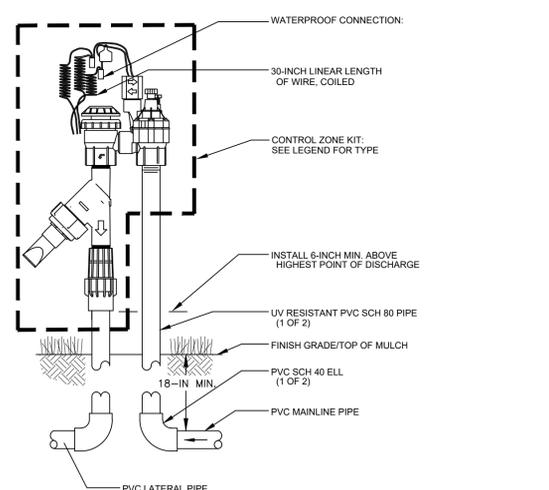
DRIPLINE SPACING NOTE:
DRIPLINE LATERALS WITHIN SHRUB/GROUND COVER AREAS ARE TO BE SPACED AT 18" O.C.

NOTES:
1. SEE IRRIGATION NOTES, LEGEND/SPECIFICATIONS FOR ALL DIMENSIONS AND LATERAL AND INLINE SPACING
2. ALL FITTINGS TO BE USED WILL BE PER MANUFACTURERS SPECIFICATIONS. USE COMPRESSION FITTINGS ONLY OR APPROVED EQUAL
3. BURY DRIPLINE 2" BELOW GRADE AND STAKE EACH DRIPLINE AT 4' O.C. OR AS NECESSARY TO INSURE SECURITY
2. ALL TREES ARE TO BE PLANTED WITHIN CENTER OF DRIP LINE RUNS. KEEP DRIP LINE A MINIMUM OF 2' AWAY FROM TREE TRUNK.
5. INSTALL CHECK VALVES AT 6' ELEVATION CHANGE INTERVALS (TYP)

(G) XERIGATION CONTROL ZONE KIT



(E) DRIP VALVE



(F) DRIP ANTI-SYPHON ASSEMBLY

ENGINEERING INC.
6747 ODESSA AVENUE
VAN NUYS, CA 91406
Phone: (818) 758-0018
Cell: (818) 203-3336
Fax: (818) 708-2847

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REVISION	BY

OWNER
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NOORI GANJLI
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IRRIGATION SYSTEM

I. SCOPE

Provide all labor, materials, transportation, and services necessary to furnish and install irrigation system as shown on the drawings and described herein.

II. QUALITY ASSURANCE AND REQUIREMENTS

- A. Permits and Fees:
The contractor shall obtain and pay for any and all permits and all inspections as required.
B. Manufacturers Directions:
Manufacturers directions and detailed drawings shall be followed in all cases where the manufacturers of articles used in this contract furnish directions covering points not shown in the drawings and specifications.
C. Ordinances and Regulations:
All local, municipal and state laws, and rules and regulations governing or relating to any portion of this work are hereby incorporated into and made a part of these specifications, and their provisions shall be carried out by the contractor.
D. Explanation of Drawings:
1. Due to the scale of drawings, it is not possible to indicate all offsets, fittings, sleeves, etc. which may be required.

III. SUBMITTALS

- A. Material List:
1. The contractor shall furnish the articles, equipment, materials or processes specified by name in the drawings and specifications.
2. Complete material list shall be submitted prior to performing any work.
3. Equipment or materials installed or furnished without prior approval of the Architect may be rejected and the contractor required to remove such materials from the site at his own expense.
4. Approval of any item, alternate or substitute indicates only that the product or products apparently meet the requirements of the drawings and specifications on the basis of the information or samples submitted.
5. Manufacturers warranties shall not relieve the contractor of his liability under the guarantee.
B. Record and As-Built Drawings:
1. The contractor shall provide and keep up to date a complete as-built record set of blue line ozalid prints which shall be corrected daily and show every change from the original drawings and specifications and the exact as-built locations, sizes, and kinds of equipment.
2. These drawings shall also serve as work progress sheets, and the contractor shall make neat and legible annotations thereon daily as the work proceeds, showing the work as actually installed.
3. Before the date of the final inspection, the contractor shall transfer all information from the as-built prints to an ozalid sepia, procured from the Architect.
4. The contractor shall dimension from two (2) permanent points of reference, building corners, sidewalks, or road intersections, etc., the location of the following items:
a. Connection to existing water lines.
b. Connection to existing electrical power.
c. Gate valves.
d. Routing of sprinkler pressure lines (dimension maximum 100 feet along routing).
e. Sprinkler control valves.
f. Routing of control wiring.
g. Quick coupling valves.
h. Other related equipment as directed by the Architect.
C. Controller Charts:
1. As-built drawings shall be approved by the Architect before controller charts are prepared.
2. Provide one controller chart for each controller supplied.
3. The chart shall show the area controlled by the automatic controller and shall be the maximum size which the controller door will allow.
4. The chart is to be a reduced drawing of the actual as-built system. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when reduced.
5. The chart shall be a black line or blue line ozalid print and a different color shall be used to indicate the area of coverage for each station.
6. When completed and approved, the chart shall be hermetically sealed between two pieces of plastic, each piece being a minimum 10 mils.
7. These charts shall be completed and approved prior to final inspection of the irrigation system.
D. Operation and Maintenance Manuals:
1. Prepare and deliver to the Architect within ten calendar days prior to completion of the construction, two hard cover binders with three rings containing the following information:
a. Index sheet stating contractors address and telephone number, list of equipment with name and addresses of local manufacturers representatives.
b. Catalog and parts sheets on every material and equipment installed under this contract.
c. Guarantee statement.
d. Complete operating and maintenance instruction on all major equipment.
2. In addition to the above mentioned maintenance manuals, provide the Owners maintenance personnel with instructions for major equipment and show evidence in writing to the Architect at the conclusion of the project that this service has been rendered.
E. Equipment to be Furnished:
1. Supply as a part of this contract the following tools:
a. Two (2) sets of special tools required for removing, disassembling and adjusting each type of sprinkler and valve supplied on this project.
b. Two (2) five foot valve keys for operation of gate valves.
c. Two (2) keys for each automatic controller.
d. Two (2) quick coupler keys and matching hose swivels for each type of quick coupling valve installed.
2. The above mentioned equipment shall be turned over to the Owner at the conclusion of the project. Before final inspection can occur, evidence that the Owner has received material must be shown to the Architect.

IV. PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Handling of PVC Pipe and Fittings:
The contractor is cautioned to exercise care in handling, loading, unloading and storing of PVC pipe and fittings. All PVC pipe shall be transported in a vehicle which allows the length of pipe to lie flat so as not to subject it to undue bending or concentrated external load at any point. Any section of pipe that has been dented or damaged will be discarded and, if installed, shall be replaced with new piping.

V. GUARANTEE

- A. The guarantee for the sprinkler irrigation system shall be made in accordance with the attached form. The general conditions and supplementary conditions of these specifications shall be filed with the Owner or his representative prior to acceptance of the irrigation system.
B. A copy of the guarantee form shall be included in the operations and maintenance manual.
C. The guarantee form shall be re-typed onto the contractors letterhead and contain the following information:
GUARANTEE FOR SPRINKLER IRRIGATION SYSTEM
We hereby guarantee that the sprinkler irrigation system we have furnished and installed is free from defects in materials and workmanship, and the work has been completed in accordance with the drawings and specifications, ordinary wear and tear and unusual abuse or neglect excepted. We agree to repair or replace any defects in material or workmanship which may develop during the period of one year from date of acceptance and also to repair or replace any damage resulting from the repairing or replacing of such defects at no additional cost to the Owner. We shall make such repairs or replacements within a reasonable time after receipt of written notice from the Owner, we authorize the Owner to proceed to have said repairs or replacements made at our expense and we will pay the costs and charges therefor upon demand.

PROJECT: _____
LOCATION: _____
COMPANY: _____
SIGNED: _____
ADDRESS: _____
PHONE: _____
DATE OF ACCEPTANCE: _____

VI. MATERIALS

- A. General: Use only new materials of brands and types noted on drawings, specified herein, or approved equals.
B. PVC Pressure Main Line Pipe and Fittings:
1. Pressure main line piping for sizes 2 inches and larger, shall be PVC Class 315.
2. Pipe shall be made from an NSF approved Type I, Grade I, PVC compound conforming to ASTM resin specification D1784. All pipe must meet requirements as set forth in Federal Specification PS-22-70, with an appropriate standard dimension (S.D.R.). (Solvent-weld Pipe).
3. Pressure main line piping for sizes 1-1/2 inches and smaller shall be PVC Schedule 40 with solvent welded joints.
4. Pipe shall be made from NSF approved Type I, Grade I PVC compound conforming to ASTM resin specification 1785. All pipe must meet requirements as set forth in Federal Specification PS-21-70. (Solvent-weld Pipe).
5. PVC solvent-weld fittings shall be Schedule 40, 1-2, II-H NSF approved conforming to ASTM test procedure D2466.
6. Solvent cement and primer for PVC solvent-weld pipe and fittings shall be of type and installation methods prescribed by the manufacturer.
7. All PVC pipe must bear the following markings:
a. Manufacturers name
b. Nominal pipe size
c. Schedule or class
d. Pressure rating in P.S.I.
e. NSF (National Sanitation Foundation) approval
f. Date of extrusion
8. All fittings shall bear the manufacturers name or trademark, material designation, size applicable I.P.S. schedule and NSF seal of approval.
C. PVC Non-Pressure Lateral Line Piping:
1. Non-pressure buried lateral line piping shall be PVC class 200 with solvent-weld joints.
2. Pipe shall be made from NSF approved, Type I, Grade II PVC compound conforming to ASTM resin specification D1784. All pipe must meet requirements as set forth in Federal Specification PS-22-70, with an appropriate standard dimension ratio.
3. Except as noted in paragraph 1 and 2 of section 2.01C, all requirements for non-pressure lateral line pipe and fittings shall be the same as for solvent-weld pressure main line pipe and fittings as set forth in section f2.018 of these specifications.
D. Brass Pipe and Fittings:
1. Where indicated on the drawings, use red brass screwed pipe conforming to Federal Specification number WW-P-351.
2. Fittings shall be red brass conforming to Federal Specification number WW-P-460.
E. Galvanized Pipe Fittings:
1. Where indicated on the drawings, use galvanized steel pipe ASA Schedule 40 mild steel screwed pipe.
2. Fittings shall be medium galvanized screwed beeded malleable iron. Galvanized couplings may be merchant coupling.
3. All galvanized pipe and fittings installed below grade shall be painted with two (2) coats of Kippers number 50 Bitumastic.
F. Gate Valves:
1. Gate Valves 3 inch and smaller shall be 125 lb. SWP bronze gate valve with screw-in bonnet, nonrising stem and solid wedge disc.
2. Gate valves 3 inch and smaller shall have threaded ends and shall be equipped with a bronze handwheel.
3. Gate valves 3 inch and smaller shall be similar to those manufactured by Nibco or approved equal.
4. All gate valves shall be installed per installation detail.
G. Quick Coupling Valves:
1. Quick coupling valves shall have a brass two-piece body designed for working pressure of 150 P.S.I. operable with quick coupler. Key size and type shall be as shown on plans.
H. Backflow Prevention Units:
1. Backflow preventers and/or vacuum breakers shall be of size and type as indicated on the drawings. All sprinkler irrigation systems that are using water from the potable water system shall require backflow prevention. All backflow prevention units shall be installed in accordance with the requirements set forth by local codes and the County Health Department.
2. Sprinkler irrigation systems which use water from the reclaimed water system will not require backflow prevention. However, all pressure main line piping receiving water from the reclaimed water system shall be of an approved type of purple pipe approved warning tape. Refer to reclaimed water notes for additional information.
I. Anti-Drain Valves:
1. Anti-drain valves shall be of heavy duty virgin PVC construction with F.I.P. thread inlet and outlet. Internal parts shall be stainless steel and neoprene. Anti-drain valve shall be field adjustable against drawout from 5 to 40 feet of head. Anti-drain valve shall be similar to the Valcon ADV or approved equal.
J. Control Wiring:
1. Connections between the automatic controllers and the electric control valves shall be made with direct burial copper wire AWG-U-F, 600 volt. Pilot wires shall be a different color wire for each automatic controller. Common wires shall be white with a different color stripe for each automatic controller. Install in accordance with valve manufacturers specification and wire chart. In no case shall wire size be less than number 14.
2. Wiring shall occupy the same trench and shall be installed along the same route as pressure supply or lateral lines wherever possible.
3. Where more than one (1) wire is placed in a trench, the wiring shall be taped together at intervals of ten (10) feet.
4. An expansion curl should be provided within three (3) feet of each wire connection and at least every one hundred (100) feet of wire length on runs more than one hundred (100) feet in length. Expansion curls shall be formed by wrapping at least five (5) turns of wire around a one-inch in diameter pipe then withdrawing the pipe.
5. All splices shall be made with Scotch-Lok #3576 Connector Sealing Packs, Pen-Tite wire connector, or approved equal. Use on splice per connector sealing pack.
6. Field splices between the automatic controller and electrical control valves will not be allowed without prior approval of the Architect.
K. Automatic Controllers:
1. Automatic controllers shall be of size and type shown on the plans.
2. Final location of automatic controllers shall be approved by the Owners authorized representative.
3. Unless otherwise noted on the plans, the 120v volt electrical power to the automatic controller Location to be furnished by others. The final electrical hook-up shall be the responsibility of the irrigation contractor.

L. Electric Control Valves:

- 1. All electric control valves shall be the same manufacturer as the automatic controllers, or per plan.
2. All electric control valves shall have a manual flow adjustment.
3. Provide and install one control valve box for each electric control valve.
M. Control Valve Boxes:
1. Use 9 inch x 24 inch round box for all gate valves, Brooks number 9 or approved equal.
2. Use 9-1/2 inch x 16 inch x 11 inch rectangular box for all electrical control valves, Carson Industries 1419-12B or approved equal.
N. Sprinkler Heads:
1. All sprinkler heads shall be of the same size, type and deliver the same rate of precipitation with diameter (or radius) of throw, pressure, and discharge as shown on the plants and or specified in these special provisions.
2. Spray heads shall have a screw adjustment.
3. Riser units shall be fabricated in accordance with the details shown on the plans.
4. Riser nipples for all sprinkler heads shall be the same size as the riser opening in the sprinkler body.
5. All sprinkler heads of the same type shall be of the same manufacturer.
6. Overhead irrigation shall not be permitted within 24-inches of any non-permeable surface.

VII. INSPECTION

- A. Site Conditions:
1. All scaled dimensions are approximate. The contractor shall check and verify all size dimensions and receive Architects approval prior to proceeding with work under this section.
2. Exercise extreme care in excavating and working near existing utilities. Contractor shall be responsible for damages to utilities which are cause by his operations or neglect. Check existing utilities drawings for existing utility locations.
3. Coordinate installation of sprinkler irrigation materials, including pipe, so there shall be NO interference with utilities or other construction or difficulty in planting trees, shrubs, and groundcovers.
4. The contractor shall carefully check all grades to satisfy himself that he may safely proceed before starting work on the sprinkler irrigation system.

VIII. PREPARATION

- A. Physical Layout:
1. Prior to installation, the contractor shall stake out all pressure supply lines, routing and location of sprinkler heads.
2. All layout shall be approved by Architect prior to installation.
B. Water Supply:
1. Sprinkler irrigation system shall be connected to water supply point of connection as indicated on the drawings.
2. Connections shall be made at approximate locations as shown on drawings. Contractor is responsible for minor changes caused by actual site conditions.
C. Electrical Supply:
1. Electrical connections for automatic controller shall be made to electrical points of connection as indicated on the drawings.
2. Connections shall be made at approximate locations as shown on drawings. Contractor is responsible for minor changes caused by actual site conditions.

IX. INSTALLATION

- A. Trenching:
1. Dig trenches straight and support pipe continuously on bottom of trench. Lay pipe to an even grade. Trenching excavation shall follow layout indicated on drawings and as noted.
2. Provide for a minimum of eighteen (18) inches cover for all pressure supply lines.
3. Provide for a minimum cover of twelve (12) inches for all non-pressure lines.
4. Provide for a minimum cover of eighteen (18) inches for all control wiring.
B. Backfilling:
1. The trenches shall not be backfilled until all required tests are performed. Trenches shall be carefully backfilled with the excavated materials approved for backfilling, consisting of earth, loam, sandy clay, sand, or other approved materials, free from clods of earth or stones. Backfill shall be mechanically compacted in landscaped areas to a dry density equal to adjacent undisturbed soil in planting areas. Backfill will conform to adjacent grades without dips, sunken areas, humps or other surface irregularities.
2. A fine granular material backfill will be initially placed on all lines. No foreign matter larger than one-half (1/2) inch in size will be permitted in the initial backfill.
3. Flooding of trenches will be permitted only with approval of the Architect.
4. If settlement occurs and subsequent adjustments in pipe, valves, sprinkler heads, lawn or planting, or other construction area is necessary, the contractor shall make all required adjustments without cost to the Owner.
C. Trenching and Backfill Under Paving:
1. Trenches located under areas where paving, asphaltic concrete or concrete will be installed shall be backfilled with sand (a layer six (6) inches below the pipe and three (3) inches above the pipe) and compacted in layers to 95 percent compaction, using manual or mechanical tamping devices. Trenches for piping shall be compacted to equal the compaction of the existing adjacent undisturbed soil and shall be left in a firm unyielding condition. All trenches shall be left flush with the adjoining grade. The sprinkler irrigation contractor shall set in place, cap and pressure test all piping under paving prior to the paving work.
2. Generally, piping under existing walks is done by jacking, boring or hydraulic driving, but where any cutting or breaking of sidewalks and/or concrete is necessary, it shall be done and replaced by the contractor as part of the contract cost. Permission to cut or break sidewalks and/or concrete shall be obtained from the Architect. No hydraulic driving will be permitted under concrete paving.

D. Assemblies:

- 1. Routing of sprinkler irrigation lines as indicated on the drawings is diagrammatic. Install lines (and various assemblies) in such a manner as to conform with the details per plans.
2. Install NO multiple assemblies on plastic lines. Provide each assembly with its own outlet.
3. Install all assemblies specified herein in accordance with respective detail. In absence of detail drawings or specifications pertaining to specific items required to complete work, perform such work in accordance with best standard practice with prior approval of Architect.
4. PVC pipe and fittings shall be thoroughly cleaned of dirt, dust and moisture before installation. Installation and solvent welding methods shall be as recommended by the pipe and fitting manufacturer.
5. On PVC to metal connections, the contractor shall work the metal connections first. Teflon tape or approved equal shall be used on all threaded PVC to PVC, and on all threaded PVC to metal joints. Light wrench pressure is all that is required. Where threaded PVC connections are required, use threaded PVC adapters into which the pipe may be welded.

E. Line Clearance:

- All lines shall have a minimum clearance of six (6) inches from each other and from lines of other trades. Parallel lines shall not be installed directly over one another.
F. Automatic Controller:
Install as per manufacturers instructions. Remote control valves shall be connected to controller in numerical sequence as shown on the drawings.
G. High Voltage Wiring for Automatic Controller:
1. 120 volt power connection to the automatic controller shall be provided by the irrigation contractor.
2. All electrical work shall conform to local codes, ordinances, and union authorities having jurisdiction.
H. Remote Control Valves:
Install where shown on drawings and details. When grouped together, allow at least twelve (12) inches between valves. Install each remote control valve in a separate valve box. The irrigation controller letter and the valve station number shall be placed on a plastic identity tag and attached to the valve wires. The valve box shall be branded on the cover with the same information.

I. Flushing of System:

- 1. After all new sprinkler pipe lines and risers are in place and connected. All necessary diversion work has been completed, and prior to installation of sprinkler heads, the control valves shall be opened and a full head of water used to flush out the system.
2. Sprinkler heads shall be installed only after flushing of the system has been accomplished to the complete satisfaction of the Architect.

J. Sprinkler Heads:

- 1. Install the sprinkler heads as designated on the drawings. Sprinkler heads to be installed in this work shall be equivalent in all respects to those itemized.
2. Spacing of heads shall not exceed the maximum indicated on the drawings. In no case shall the spacing exceed the maximum recommended by the manufacturer.

X. TEMPORARY REPAIRS

The Owner reserves the right to make temporary repairs as necessary to keep the sprinkler system equipment in operating condition. The exercise of this right by the Builder-Developer shall not relieve the contractor of his responsibilities under the terms of the guarantee as herein specified.

XI. EXISTING TREES

Where it is necessary to excavate adjacent to existing trees, the contractor shall use all possible care to avoid injury to trees and tree roots. Excavation in areas where two (2) inch and larger roots occur shall be done by hand. All roots two (2) inches and larger in diameter, except directly in the path of pipe or conduit, shall be tunneled under and shall be heavily wrapped with burlap to prevent scarring or excessive drying. Where a ditching machine is run close to trees having roots smaller than two (2) inches in diameter, the wall of the trench adjacent to the tree shall be hand trimmed, making clean cuts thorough. Roots one (1) inch and larger in diameter shall be painted with two coats of Tree Seal, or equal. Trenches adjacent to trees should be closed within twenty-four (24) hours; and where this is not possible, the side of the trench adjacent to the tree shall be kept shaded with burlap or canvas.

XII. FIELD QUALITY CONTROL

- A. Adjustment of the System:
1. The contractor shall flush and adjust all sprinkler heads for optimum performance and to prevent overspray onto walks, roadways, and buildings as much as possible.
2. It is determined that adjustments in the irrigation equipment will provide proper and more adequate cover, the contractor shall make such adjustments prior to planting. Adjustments may also include changes in nozzle sizes and degrees of arc as required.
3. Lowering raised sprinkler heads by the contractor shall be accomplished within ten (10) days after notification by Owner.
4. All sprinkler heads shall be set perpendicular to finished grades unless otherwise designated on the plans.
B. Testing of Irrigation system:
1. The contractor shall request the presence of the Architect in writing at least 72 hours in advance of testing.
2. Test all pressure lines under hydrostatic pressure of 150 lbs. per square inch, and prove watertight. Note: Testing of pressure main lines shall occur prior to installation of electrical control valves.
3. All piping under paved areas shall be tested under hydrostatic pressure of 150 lbs. per square inch, and proved watertight, prior to paving.
4. Sustain pressure in lines for not less than two (2) hours. If leaks develop, replace joints and repeat test until entire system is proven watertight.
5. All hydrostatic tests shall be made only in the presence of the Architect, or other duly authorized representative of the Owner. No pipe shall be backfilled until it has been inspected, tested and approved in writing.
6. Furnish necessary force pump and all other test equipment.
7. When the sprinkler irrigation system is completed, perform a coverage test in the presence of the Architect to determine if the water coverage for planting areas is complete and adequate. Furnish all materials and perform all work required to correct any inadequacies of coverage due to deviations from plans, or where he system has been willfully installed as indicated on the drawings when it is obviously inadequate, without bringing this to the attention of the Architect. This test shall be accomplished before any ground cover is planted.
8. Upon completion of each phase of work, entire system shall be tested and adjusted to meet site requirements.

XIII. MAINTENANCE

- A. The entire sprinkler irrigation system shall be under full automatic operation for a period of seven (7) days prior to any planting.
B. The Architect reserves the right to waive or shorten the operation period.

XIV. CLEAN-UP

Clean-up shall be made as each portion of work progresses. Refuse and excess dirt shall be removed from the site, all walks and paving shall be broomed or washed down, and any damage sustained on the work of others shall be repaired to original conditions.

XV. FINAL INSPECTION PRIOR TO ACCEPTANCE

- A. The contractor shall operate each system in its entirety for the Architect at time of final inspection. Any items deemed not acceptable by the inspector shall be reworked to the complete satisfaction of the Architect.
B. The contractor shall show evidence to the Architect that the Owner has received all accessories, charts, record drawings, and equipment as required before final inspection can occur.

XVI. FINAL INSPECTION SCHEDULE

- A. Contractor shall be responsible for notifying the Architect in advance for the following inspections, according to the time indicated:
1. Pre-job Conference - 7 days
2. Pressure supply line installation and testing - 72 hours
3. Automatic controller installation - 72 hours
4. Control wire installation - 72 hours
5. Lateral line and sprinkler installation - 72 hours
6. Coverage test - 72 hours
7. Final inspection - 7 days
B. When inspections have been conducted by other than the Architect show evidence of when and by whom these inspections were made.
C. No inspection will commence without as-built drawings. In the event the contractor calls for an inspection without as-built drawings, without completing previously noted corrections, or without preparing the system for inspection, he shall be responsible for reimbursing the Architect at the rate of \$75.00 per hour portal to portal (plus transportation costs) for the inconvenience. No further inspections will be scheduled until this charge has been paid.



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Table with 2 columns: REVISION, BY. Multiple empty rows for revisions.

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PROJECT
13460-13462 W. Ventura Blvd.
Sherman Oaks, Ca 91423

DRAWING TITLE
IRRIGATION SPECIFICATIONS

Table with 2 columns: DATE, SCALE, DRAWN, APPROVED, JOB, SHEET. Values include June 20, 1/8"=1'-0", V.A., 18-823.

PLANTING SPECIFICATIONS

I. SCOPE

Furnish all material, labor, transportation, equipment, and property to complete the landscaping of the planting areas shown on the drawings, or reasonably implied to complete the construction. Included as a part of the work of this Section, but not necessarily limited by it, are the following items:

- A. Pre-planting weed control of all planting areas.
- B. Soil preparation and fine grading of all planting areas, including the addition of soil amendments.
- C. Preparation of all planting and specimen tree holes.
- D. Furnishing and installation of all plant materials, lawns, ground covers, mulches, etc.
- E. Furnishing and installation of all required planting backfill materials, tree stakes, guy wires, and miscellaneous material.
- F. Providing maintenance for ninety (90) continuous calendar days after acceptance of construction.
- G. Guarantee and replacement.

II. MATERIALS

All materials shall be of standard, approved and first grade quality and shall be in prime conditions when installed and accepted. Any commercially processed or packaged material shall be delivered to the site in the original unopened container bearing the manufacturers guaranteed analysis. Contractor shall supply Owner with a sample of all supplied materials accompanied by analytical data from an approved laboratory source illustrating compliance or bearing the manufacturers guaranteed analysis.

- A. Topsoil: Topsoil, as required, shall be obtained from on site excavations.
- B. Soil Conditioners and Fertilizers: Soil conditioners may include any or all of the specific conditioners herein specified.
 - 1. Nitrogen stabilized organic amendment. Amendment shall be fir or cedar sawdust. Source shall be derived from wood of fir or wood of cedar containing the following physical properties:

Percent Passing	Sieve Size
95-100	6.33 mm (1/4 inch)
80-100	2.38 (No. 8, 8 mesh)
0-30	500 Micron (No. 35, 32 mesh)

 Chemistry shall be:
 Nitrogen Content (dry weight) - 0.65% - 0.84%
 Iron Content - Minimum 0.08 % dilute acid soluble Fe. on dry weight basis.
 Soluble Salts - Maximum 3.5 Millimohos centimeter at 25 degrees centigrade as determined by saturation extract method.
 Ash - (dry weight) 0 - 6.0%

- 2. Other Materials: Fertilizer shall be delivered to the site in the original unopened containers and of commercial grade, uniform in composition, dry and free flowing, of the following analysis
 - a. Gro-Power Plus
 - b. Gro-Power planting tablets
 - c. As Specified
- C. Tree Support: Materials for staking and guying shall be as follows:
 - 1. Support stakes shall be lodge pole pine stakes, Length as determined to facilitate upright stand as described.
 - 2. Ties: Elastic webbing, polyethylene tape, or Owner approved tie.
 - 3. Guy wire, steel guy anchor and plastic hose tie of adequate size and length to safely support tree.

- D. Miscellaneous Materials: Sand: Washed river sand or equal.
 Post Emergent Weed Killer: Paraquat, Roundup, or Owner approved herbicide.
 Tree Wound Paint: As approved.
 Fiber: Wood cellulose mulching fiber Conweb or equal.
 Chemical Additive: Seed germinating additive CPA 4000 or equal.

- 1. Nomenclature: The scientific and common names of plants herein specified conform with the approved names given in A Checklist of Woody Ornamental Plants in California, Manual 32, published by the University of California School of Agriculture (1963).
- 2. Plant List for Bid: The contractor is herein referred to the landscape plans for the plant material selection and the requirements of this section of the specifications. Container sizes, unless otherwise stated, have been used to indicate the size of the plant material required.
- 3. Labeling/Delivery: Each group of plant materials delivered to the site shall be clearly labeled as to species, variety and nursery source; however, determination of plant species or variety will be made by the Landscape Architect, and his decision will be final. The contractor shall notify the Landscape Architect 72 hours in advance of delivery of all plant materials and shall submit an itemized list of the plants in each delivery. As a convenience to the contractor, the Landscape Architect upon request, will inspect box size material at the source nursery prior to delivery at the cost of the contractor. Said source nurseries shall be reasonably close to the project site as determined by the Landscape Architect. Plant material so inspected shall arrive at the project site in an undamaged condition.
- 4. Quality and Size: Plants shall be in accordance with the California State Department of Agricultures regulation for nursery inspections, rules and grading. All plants shall have a normal habit of growth and shall be sound, healthy, vigorous, and free of insect infestations, plant diseases, sun scalds, fresh abrasions of the bark, excessive abrasions, or other objectionable disfigurements. Tree trunks shall be sturdy and well (hardened off). All plants shall have normally well - developed branch systems and vigorous and fibrous root systems which are not root or pot bound. In the event of disagreement as to condition of root system, the root condition of the plants furnished by the contractor in containers will be determined by removal of earth from the roots of not less than two plants or more than two percent of the total number of plants of each species or variety. Where container grown plants are from several sources, the roots of not less than two plants of each species or variety from each source will be inspected. In case the sample plants inspected are found to be defective, the Landscape Architect reserves the right to reject the entire lot or lots of plants represented by the defective samples. The Landscape Architect is the sole judge as to acceptability. Any plants rendered unsuitable for planting because of this inspection will be considered as samples and will be provided at the expense of the contractor. The size of the plants will correspond with that normally expected for species and variety of commercially available nursery stock, or as specified in the Special Conditions or drawings. The minimum acceptable size of all plants, measured before pruning with the branches in normal position, shall conform with the measurements, if any specified on the drawings in the list of plants to be furnished. Plants larger in size than specified may be used with the approval of the Landscape Architect, but the use of larger plants will make no change in contract price. If the use of larger plants is approved, the ball of earth or spread of roots for each plant will be increased proportionately.
- 5. Rejection or Substitutions: All plants not conforming to the requirements herein specified, shall be considered defective, and such plants, whether in place or not, shall be marked as rejected and immediately removed from the site of the work and replaced with new plants at the contractors expense. The plants shall be of the species, variety, size and condition specified herein or as shown on the drawings. Under no condition will there be any substitution of plants or sizes of those listed on the accompanying plans, except with the expressed consent of the Landscape Architect.
- 6. Pruning: At no time shall trees or plant material be pruned, trimmed or topped prior to delivery and any alteration of their shape shall be conducted only with the approval and when in the presence of the Landscape Architect and as noted in the Planting Specifications.
- 7. Protection: All plants at all times shall be handled and stored so that they are adequately protected from drying out, from wind burn, or from any other injury.
- 8. Right of Inspection: The Landscape Architect reserves the right to approve or reject at any time upon delivery or during the work any or all plant material regarding size, variety or condition.

- E. Seed: All seed used shall be labeled and shall be furnished in sealed standard containers with signed copies of a statement from the vendor, certifying that each container of seed delivered is fully labeled in accordance with the California State Agricultural Code and is equal to or better than the requirements of these specifications.
- F. Hydro-Mulching Materials: The hydro-mulch mix shall consist of wood cellulose mulching fiber, Conweb mulching fiber or equal.
- G. Hydro-Mulching Application: Equipment: Hydraulic equipment used for the application of the fertilizer, seed and slurry of prepared wood pulp shall be of the Super Hydroseeder type as approved by the Landscape Architect. This equipment shall have a built-in agitation system and operating capacity sufficient to agitate, suspend and homogeneously mix a slurry containing not less than 40 lbs. of fiber mulch plus a combined total of 7 lbs. fertilizer solids for each 100 gallons of water. The slurry distribution lines shall be large enough to prevent stoppage and shall be equipped with a set of hydraulic spray nozzles which will provide a continuous non-fluctuating discharge. The slurry tank shall have a minimum capacity of 1,500 gallons and shall be mounted on a traveling unit, either self-propelled or drawn by a separate unit, which will place the slurry tank and spray nozzles within sufficient proximity to the areas to be seeded.

III. GRADING AND SOIL PREPARATION

The general subsoil grading, deep ripping, tilling, and establishment of the rough grade will be done by others, under a separate contract. Other work such as fine grading, cultivation (and in some cases, addition of topsoil) and/or soil conditioners are required to prepare the finish grade. After approximate finished grades have been established, soil shall be conditioned and fertilized in the following manner. Materials shall, at the following rates, be uniformly spread and cultivated thoroughly by means of mechanical tiller into the top 6 inch of soil per 1000 square feet:

Application Rates
See Soil Notes
4 cu. Yards of Nitrogen Stabilized Organic Amendment

All soil areas shall be compacted and settled by application of heavy irrigation to a minimum depth of twelve (12) inches.

- A. Final Grades: After the foregoing specified deep watering, minor modifications to grade may be required to establish the final grade. These areas shall not be worked until the moisture content has been reduced to a point where working it will not destroy soil structure.
 - 1. Finish grading shall insure proper drainage of the site.
 - 2. All areas shall be graded so that the final grades will be one inch below adjacent paved areas, sidewalks, valve boxes, headers, clean-outs, drains, manholes, etc.
 - 3. Surface drainage shall be away from all building foundations.
 - 4. Eliminate all erosion scars.
 - 5. For soils less than 6% organic matter in the top 6 inches of soil, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil.

IV. PLANTING INSTALLATION

Actual planting shall be performed during those periods when weather and soil conditions are suitable and in accordance with locally accepted practices, as approved by the Landscape Architect.

- A. Weed Control: After soil preparation and establishment of final grades prior to any planting, the contractor shall irrigate thoroughly for a period of time, two (2) to three (3) weeks or until weed seeds have germinated. When there is sufficient weed seed germination, the contractor shall apply a post-emergent weed killer, according to the directions of the manufacturer. The contractor shall then wait an additional one (1) week to allow the weed killer to dissipate, then plant as indicated in the plans and specifications.
- B. Layout of Major Plantings: Locations for plants and outlines of areas to be planted shall be marked on the ground by the contractor before any pits are dug. All such locations shall be approved by the Landscape Architect. If an underground construction or utility line is encountered in the excavation of planting areas, other locations for planting may be selected by the Landscape Architect.
- C. Planting of Trees, Shrubs and Vines:
 - 1. Excavation for planting: Excavation for planting shall include the stripping and stacking of all acceptable topsoil encountered within the areas to be excavated for trenches, tree holes, plant pits and planting beds.
 - a. Protect all areas from excessive compaction when trucking plants or other material to the planting site.
 - b. All excavated holes shall have vertical sides with roughened surfaces and shall be of a size that is twice the diameter and 6 inch minimum deeper than the root ball.
 - c. Excess soil generated from the planting holes and not used as backfill or in establishing the final grades shall be removed from the site.
 - 2. Planting: No planting shall be done in any area until the area concerned has been satisfactorily prepared in accordance with these specifications. Only as many plants as can be planted and watered on that same day shall be distributed in planting area. Containers shall be opened and plants shall be removed in such a manner that the ball of earth surrounding the roots is not broken, and they shall be planted and watered as herein specified immediately after removal from the containers. Containers shall not be opened prior to placing the plants in the planting area. Container plants shall be backfilled with:
 - See Soil Notes
 - Palm Backfill**
 - 8 parts by volume washed river sand
 - 2 parts by volume nitrogen stabilized organic amendment
 - 10 lbs. Gro-Power palm fertilizer per cubic yard of mix
 - 2 lbs. Agricultural gypsum per cubic yard of mix
 All plants which settle deeper than specified above shall be raised to the correct level. After the plant has been placed, additional backfill shall be added to the hole to cover approximately one-half of the height of the root ball. At this stage water shall be added to the top of the partly filled hole to thoroughly saturate the root ball and adjacent soil. After the water has completely drained, planting tablets shall be placed as indicated below:
 - 3 tablets per one gallon container
 - 8 tablets per five gallon container
 - 15 tablets per fifteen gallon container
 - 16 tablets per 20 inch and 24 inch box
 - 18 tablets per 30 inch box
 - 20 tablets per 36 inch box
 - 22 tablets per 42 inch box
 - 24 tablets per 48 inch box
 Larger sizes: For each half inch caliper measured 14 inches above soil level use 3 additional tablets. The remainder of the hole shall then be backfilled. Planting tablets shall be set with each plant on the top of the root ball while the plants are still in their containers so the required number of tablets to be used in each hole can be easily verified. After backfilling, an earthen basin shall be constructed around each plant. Each basin shall be of a depth sufficient to hold at least two inches of water. Basins shall be of a size suitable for the individual plant. In no case shall a basin for a fifteen gallon plant be less than four feet in diameter; a five gallon plant, less than three feet in diameter; and a one gallon plant, less than two feet in diameter. The basins shall be constructed of amended backfill materials.



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DRAWING TITLE
PLANTING SPECIFICATIONS

DATE: June 20
SCALE: 1/8"=1'-0"
DRAWN:
APPROVED: V.A.
JOB : 18-823
SHEET:



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DRAWN:

APPROVED: V.A.

JOB : 18-823

SHEET:

L-9

3. Pruning: Pruning shall be limited to the minimum necessary to remove injured twigs and branches, and to compensate for loss of roots during transplanting, but never to exceed one-third of the branching structure. Upon approval of the Landscape Architect, pruning may be done before delivery of plants, but not before plants have been inspected and approved. Cuts over three-quarters of an inch in diameter shall be painted with tree wound paint.
4. Staking and Guying: Staking of all trees shall conform to tree staking and tree guying details and as herein specified. Protective stakes may be planted with the tree, driving them into undisturbed soil at the bottom of the planting hole until 18 inches remains above ground level. Support stakes tall enough to support the particular tree shall be driven 18 inches into the soil. A line drawn between the two support stakes shall be at right angles to the most troublesome wind direction. Attach crossties to the supportive stakes on the leeward side of the prevailing wind. Ties shall be placed as low on the trunk as possible but high enough so the tree will return to upright after deflection. To find the proper height for tie locations, hold the trunk in one hand, pull the top to one side and release. The height at which the trunk will just return to the upright when the top is released is the height at which to attach the ties. Ties are to form a loose loop around the tree trunk and auxiliary stake so that the trunk cannot work towards the support stakes. Support stakes are not to exceed 6 inches above the tie locations. The auxiliary stake shall be attached to those trees needing extra trunk support as determined by the Landscape Architect. Wind and wrap the top of the wire with friction tape. One tree of each size shall be staked and approved by the Landscape Architect prior to continued staking.

D. Ground Covers:

Ground covers will be planted in the areas indicated on the plans. Ground cover plants shall be grown in flats, peat pots, or taken as cuttings, as indicated on the plans. Flat grown plants (rooted cuttings) shall remain in those flats until transplanting. The flats soil shall contain sufficient moisture so that it will not fall apart when lifting the plants. If plants from peat pits are used, the pots shall be protected at all times prior to planting to prevent unnecessary drying of the root ball. Unrooted cuttings shall be 10 inches or more in length. They shall be insect and disease free tip cuttings from healthy, vigorous and strong growing plants. Mature or brown-colored stem growths or cuttings which have been trimmed or rooted before planting will not be accepted. Cuttings shall be planted not more than 2 days after cutting and shall not be allowed to dry or wither.

1. Ground cover shall be planted in straight rows and evenly spaced, unless otherwise noted, and at intervals called out in the drawings. Triangular spacing shall be used unless otherwise noted on the plans.
2. Each rooted plant shall be planted with its appropriate amount of flat soil or in a peat pot, in a manner that will insure minimum disturbance of the root system, but in no case shall this depth be less than two nodes. To avoid drying out, plantings shall be immediately sprinkled after planting until the entire area is soaked to the full depth of each hole, unless otherwise noted on the drawings.

E. Lawn:

Lawn shall be planted by hydroseeding and sodded as indicated on the plans. All areas shall be free from weeds and weed residue.

F. Hydroseeding:

Hydroseeding shall include application of mulch, fertilizer and seed planting bed preparation, pre and post-planting irrigation.

1. After soil preparation, establishment of final grades and weed control, the surface two (2) inches of soil shall be loosened by harrow rototiller and floated level and irrigated just prior to planting.
2. Preparation: The slurry preparation shall take place at the site of work and shall begin by adding water to the tank when the engine is at half throttle. When the water level has reached the height of the agitator shaft, good recirculation shall be established and at this time the seed and chemical additive shall be added. Fertilizer shall then be added followed by wood pulp mulch. The wood pulp mulch shall only be added to the mixture after the tank is at least one-third filled with water. The engine throttle shall be opened to full speed when the tank is half filled with water. All the wood pulp mulch shall be added by the time the tank is two-thirds to three-fourths full. Spraying shall commence five minutes after addition of the chemical additive when the tank is full.

Application rates:

 - Fiber 1,500 lbs. per acre.
 - Seed See plans
 - Gro-Power Plus 1,200 lbs. per acre (if area has been soil prepped, only use 400 lbs. per acre)
 - Chemical Additives 3 gallons per acre
 - Urea Formaldehyde 300 lbs. per acre
3. Application: The operator shall spray the area with a uniform visible coat by using the green color of the wood pulp as a guide. The slurry shall be applied in a sweeping motion, in an arched stream so as to fall like rain allowing the wood fibers material to spread at the required rate per acre.
4. Time Limit: All slurry mixture which has not been applied within two hours after mixing will be rejected and removed from the project at the contractor's expense.
5. Irrigation: Immediately after completion of hydroseeding, each area shall be irrigated. Irrigation during the germination period of the seeds shall keep the hydro-mulch moist at all times without creating run-off, erosion or over-saturation. The irrigation system is to be in operating condition and have been tested before planting is started.

V. ESTABLISHMENT AND MAINTENANCE PERIOD

The contractor shall continuously maintain all areas involved in this contract during the progress of the work and during the establishment period until final acceptance of the work by the Owner. The contractor shall request an inspection to begin the plant establishment period after all planting and related work has been completed in accordance with the Contract Documents. A prime requirement is that all lawn areas shall show an even, healthy stand of grass seedlings which shall have been mowed twice. If such criteria is met to the satisfaction of the Landscape Architect, a field notification will be issued to the contractor to establish the effective beginning date of the plant establishment and maintenance period. Any day when the contractor fails to adequately maintain plantings, replace unsuitable plants or do weed control or other work, as determined necessary by the Landscape Architect, will not be credited as one of the plant establishment working days. Improper maintenance or possible poor condition of any planting at the termination of the scheduled establishment period may cause postponement of the final completion date of the contract. Maintenance shall be continued by the contractor until all work is acceptable. In order to carry out the plant establishment work, the contractor shall furnish sufficient men and adequate equipment to perform the work during the plant establishment period. Maintenance shall be according to the following standards:

- A. All areas shall be kept free of debris and all planted areas shall be weeded and cultivated at intervals of not more than ten (10) days. Watering, mowing, rolling, edging, trimming, fertilization, spraying and pest control, as may be required, shall be included in the establishment period.
- B. The contractor shall be responsible for maintaining adequate protection of the area. Damaged areas shall be repaired at the contractor's expense.
- C. Between the 15th day and the 20th day of the establishment period, the contractor shall reseed all spots or areas within the lawn where normal turf growth is not evident.
- D. Fertilize all planting areas with the following - See soil notes
- E. Mowing of turf will commence when the grass has reached a height of two inches. The height of cut will be 1 to 1-1/2 inches. Mowing will be at least weekly after the first cut. Turf must be well established and free of bare spots and weeds to the satisfaction of the Landscape Architect prior to final acceptance.
- F. The contractor's maintenance period will be extended if these provisions are not filled.
- G. Clean-up:

The contractor shall keep the premises free from accumulation of waste materials and debris. After all planting operations have been completed, the contractor shall remove all trash, excess soil, empty plant containers, tools, and equipment used in this work and/or any other debris resulting from his work on the site. Any scars, ruts, or mars in the area caused by the landscape work shall be repaired at the contractor's expense. The contractor shall leave the site area broom clean and shall wash down all paved areas within the contract area leaving the premises in a clean condition.

GUARANTEE AND REPLACEMENT

- A. All plant material installed under the contract shall be guaranteed against any and all poor, inadequate or inferior materials and/or workmanship for a period of one year. Any plant found to be dead or in poor condition due to faulty materials or workmanship, as determined by the Landscape Architect, shall be replaced by the contractor at his expense.
- B. Any materials found to be dead, or in poor condition during the establishment period shall be replaced immediately. The Landscape Architect shall be the sole judge as to the condition of material. Material to be replaced within the guarantee period shall be replaced by the contractor within 15 days of written notification by the Owner.
- C. Replacement shall be made in the same manner as required for original plantings. Materials and labor involved in the replacing of material shall be supplied by the contractor at no additional cost to the Owner.

VI. INSPECTIONS

Normal progress inspection shall be requested from the Landscape Architect at least 72 hours in advance of an anticipated inspection. An inspection will be made by the Landscape Architect on each of the steps listed below. The contractor will not be permitted to initiate the succeeding steps of work until he has received written approval to proceed by the Owner.

- A. Immediately prior to the commencement of the work on this section
- B. Completion of fine grading.
- C. Completion of soil conditioning
- D. Prior to application of post-emergent weed killers.
- E. Pre or post-delivery of all plant material.
- F. Completion of major plant layout.
- G. Prior to hydroseeding or installation of sod.
- H. Commencement of maintenance.
- I. Completion of first 30 day maintenance period.

Final Acceptance of the Project: Prior to the date of the final inspection, the contractor shall acquire from the Owner approved mylar prints, and finally record from the job record set all changes made during construction, label said prints As-Builts, and deliver to the Landscape Architect. Prior to the date of final inspection, the contractor shall deliver to the Landscape Architect the Landscape and Irrigation Guarantee as required.

SOIL NOTES

1. Soil Preparation - add 50 lbs. of Agricultural Gypsum 1,000 sq. ft.
2. Backfill shall consist of the following:
 - 7 parts native on site soil, by volume
 - 3 parts nitrilized shavings, by volume 16 lbs. Gro-power Plus per cubic yard of mix
3. Hydro-seeding - For already soil prepared areas, apply 280 lbs. Gro-power Hi-Nitrogen per acre. For non-prepped soil areas, apply 1,000 lbs. Gro-power Plus and 300 lbs. Gro-power Controlled release per acre.
4. Maintenance - Feed with 20 lbs. Gro-power Plus 1,000 sq. ft. on days 45 and 85 of maintenance.

NOTES

The above materials are for bid purposes only. The exact materials will be determined after the grading is completed, along with a soils test by the Landscape Contractor

AGRONOMIC SOIL REPORT

Contractor shall obtain a agronomic soil report prior to start of construction. this report is required for pre-installation meeting along with all it's recommended material being on-site for inspection prior to beginning work.

SOIL NOTES